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**MEDICATED
VAPOR BATH ESTABLISHMENT,
AND ASYLUM FOR THE SICK,
NO. 12 FRANKLIN STREET, BOSTON.**

DR. M. M. MILES,

(SUCCESSOR TO THE LATE LAMENTED DR. A. GERRISH.)

Would respectfully inform his friends and the public generally, that he has removed from GRAPHIC COURT to the above named place, where he will be able to pay more attention to their comfort and convenience. He has taken a commodious house in one of the most pleasant, quiet, and central streets in the city, which he has fitted up with every regard to the accommodation of the invalid. Patients are always under his immediate care, and can be boarded at a reasonable rate while they may wish to remain at his house. All who patronize this establishment can depend upon thorough medical treatment; and every means will be used to render their situation pleasant, and to effect a cure in the shortest possible time.

He has likewise secured the services of Mr. HENRY B. MAY as an assistant.

Ladies who may wish to enjoy the luxuries of this celebrated Vapor Bath, or who may require medical aid, will be waited upon by accommodating Female Attendants and the best of Nurses. Their department is entirely disconnected from that of the Gentlemen.

The variety of diseases and their prevalence in our climate, together with the advantage taken of this circumstance by avaricious and unskillful men, in the fabrication of every sort of medicine, and the application of injurious agents for the restoration of the patient, renders it highly necessary that the public should thoroughly examine the means which they take to get relief: such an examination is freely challenged for the course here pursued.

A large portion of our most prevalent diseases may be embraced under two classes. First, those arising from colds, such as Consumption, Fever, Rheumatism, &c.; and second, diseases of the Skin, whether hereditary, or arising immediately from impurity of the blood and inattention to this important organ. As an agent for removing these diseases, the WHITLAW MEDICATED VAPOR BATH has been found most efficacious, as hundreds in this city and its vicinity can testify. A severe cold is readily removed, and thus the long train of evils resulting from its continuance is prevented; and when it has been neglected until Rheumatism has given pain or stiffness to the limbs, or Consumption has fastened itself upon the vital organs, these Baths have proved a remedy when every thing else has failed.

It is the most efficient agent in removing Scrofulous affections, Salt Rheum, Neuralgia, Tic Doreux, Nervous Irritability, painful and diseased Eyes, Sore Throat, diseases of the Liver, Dyspepsia, Costiveness, Pimpled Face, Ring Worms, Gout, Erysipelas, obstinate Glandular affections, Fevers

of every description, and all Cutaneous diseases. The vapor of the materials used cleanses and strengthens the skin, that extensive organ which nature has provided for removing injurious matter from the system. In most of these cases it will effect a permanent cure; and in those beyond the reach of human cure, it gives a relief which can be obtained from no other agent in use — this is particularly the case with consumption, that malignant malady which sweeps away so large a number of both young and old. The lungs are readily reached by inhaling the vapor of the Bath, and this will often restore them to health. When the patient is beyond recovery, the pain and suffering so often attending the last stages of the disease are alleviated by inhalation.

The Medicated Bath is moreover esteemed a great luxury by many who have no particular disease, being far superior to any other kind of bath. It allays the excitement of the nervous system, producing a calm and refreshment obtained in no other way. It is highly recommended by the first Physicians in this country and in Europe. Persons can take them under the advice of their own Physicians, and rely upon their directions being rigidly adhered to.

In addition to the Whitlaw Baths, he has a PORTABLE APPARATUS for administering a Vapor Bath, medicated with sulphur or other remedies (as the case may require) to persons who may be confined at their houses, in any part of the city.

Dr. M.'s system of practice differs in many of its features from any other. The valuable Medicines which he makes use of are also for sale at his Dispensary.

The following is an extract from a communication published in the Boston Transcript a short time since:

We wish, through the medium of your columns, to call the attention of the public more particularly to the establishment kept by Dr. Miles. Having ourselves enjoyed the luxury of Dr. Miles' Medicated Vapor Bath, and having also been benefitted by his medical treatment, we feel a pleasure in recommending him and his establishment to public patronage. We can assure the public that as a means of cleansing the skin, the Vapor Baths are infinitely superior to any other, and are, besides, among the greatest luxuries that can be enjoyed.

Dr. Miles, besides being a very kind and sympathizing man, and an able and skilful practitioner, is also a gentleman of unblemished moral character, and he enjoys the confidence and respect of many among the first classes in the city, who have bestowed on him a liberal share of patronage.

We recommend the sick, both in the city and country, to his care; and we assure them and the public that if they will but once have recourse to the MEDICATED VAPOR BATH, they will require no solicitation to continue the practice as occasion may require.

PHINEAS CAPEN, Probate Office,
SAMUEL H. GREGORY, 25 Court Street.
A. A. CHILDS, 26 Washington Street.

June 16, 1843.

A

SYNOPSIS

ON THE

PREVENTION AND CURE

OF

DISEASE.

BY

ANDREW GERRISH,
PHYSICIAN.

Dec 20 1841
Washington
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## P R E F A C E .



THE object of this work is to point out and make known the means by which those who have lost their health may regain, premote, and preserve it. To remove the various diseases that so frequently assail us through the journey of life, is the great object of the following pages.

Whoever attends to the particulars mentioned in this work will easily perceive, that all the intentions of medicines may be obtained by a long course of diet. Of all subjects diet is the most important. Every indication of cure can be obtained from our food, from exercise, and cleanliness. If mankind would but study the works of creation and providence, disease would in a great measure be banished from the earth. The laws of life and health are easily understood, and man might, in all ordinary cases, become his own physician.





# SYNOPSIS.



## *On the Structure of the Human Body.*

BEFORE we enter upon the prevention or cure of disease, it may not be improper to take a popular view of the structure of the human body, and more particularly the functions immediately connected with life. Besides those materials of solids and fluids, which compose the human fabric, there may be added a sentient and vital principle pervading the whole.

The vital principle, in animated bodies, possesses greater degrees of force and perfection in proportion as the organization of those bodies is complete. How great is the difference between the vivacity of childhood and the caution and fearfulness of age! Whatever may constitute the living principle in animals remains a mystery, and probably ever will to the end of time; but it is clearly manifest that the production of life is the noblest effort of Omnipotence, and the centre in which all His other operations terminate: and when we contemplate the structure of the human body, as displayed by anatomy, and there

behold in that fair investiture such unity and variety; we must acknowledge that nothing less than a BEING of infinite wisdom and power could have constructed and executed such a wonderful piece of mechanism.

We shall now proceed to give a short account of the external organs of the body, and commence with the *bones*, which are the hardest and most solid organs of the system;—they form the walls of the building, around which the other parts are disposed, determining its size, proportion, form, and attitude:—they defend the vital organs from external injury:—they support the abdominal viscera, and maintain them in their situation; and are, in fact, the levers, which, when articulated together, enable us to travel over the earth's continent. Bones begin to be formed at a very early stage of existence, and are cast into a variety of moulds and sizes. About the fourth or fifth week of gestation, the thorax or chest is a delicate gelatinous membrane; and in the sixth, the ribs have the appearance of a spider's web. From this period they rapidly advance to a cartilaginous state, which may be considered the second stage in their transition to bone. Between the eighth and tenth weeks, points of ossific matter are deposited in various membranes; in those of the cranium, being the rudiments of flat bones, the ossific matter branches around like the radii of a circle, presenting a beautifully feathered appearance. In the long bones rings of bony matter begin to appear in the middle, spreading upwards and downwards to the extremities of the

bones. The formation of the annual ring of wood in trees, and the growth in height by the elongation of the annual shoot, beautifully and clearly illustrate the mode in which the long bones are formed. In a state of health the bones are endowed with little sensibility; but they are surrounded by the periosteum, a membrane exquisitely sensitive, that warns of approaching injury, and preserves the muscles from being fretted by their action. In infancy and early youth the animal properties preponderate; in middle age they exist in nearly equal quantities; and as life gradually declines the earthly constituents increase, vascularity is diminished, cohesion leaves them, and they appear to be preparing to moulder away into that state from which they sprung.

To facilitate the various motions of the bones on each other, their ends are tipped with a beautiful inelastic substance called *cartilage*, and are firmly tied together by white bands called *ligaments*. Thus the basis of our frame is fitted for locomotion.

But the bones, from their inelasticity, have no power of approximation; therefore it is necessary that a contractile substance should be attached to them, in order to bring their extremities in contact with each other; and this is effected through the agency of the *muscles*, which we commonly call flesh, which is composed of various distinct portions, firmly fixed to the bones by a strong inelastic substance, called tendon, which enables them to act

with such power as frequently to fracture the bones themselves when acting spasmodically.

### *Blood Vessels.*

There are various vessels or tubes in the body, named according to the fluids they contain; as blood vessels, lacteals, lymphatics, &c. The blood vessels are of two kinds: *arteries*, which carry the blood from the heart to every part of the system, and *veins*, which convey it back again to the heart. These are most important organs of the body, on which all the rest depend for life and support.

### *The Skin.*

The *skin* extends over all these organs, and forms the envelope of the body. It is covered externally by a solid insensible substance, called the *epidermis*, which defends it from the action of the air, which would dry it and make it less sensible if unprotected.

Above the muscles, and directly under the skin, is a spongy layer, called *cellular substance*, the cells of which are filled with fat. This cellular covering is enormously thick in whales, and denominated the blubber, which keeps the animal warm. Above this is the true skin,—smooth and delicate on its external surface, but of a looser texture on the under side, where it forms a union with the cellular substance. This true skin is *technically cutis vera*. It is pro-

fusely supplied with blood vessels, and so numerous are its nerves, that the point of a needle can no where be inserted without wounding one of them.

As all the nerves finally run towards the surface of the body, it has led some to the opinion that the true skin was a tissue of nerves and vessels, so intimately interwoven as to constitute a highly sensitive envelope for the body. The color of the true skin is nearly the same in all races of men,—being as white in the negro as in the European.

*Reta Mocosum.*—There is spread over the skin an extremely thin layer of paint, of the consistency of thin size, which has received the name of *reta mucosum*, and on this wholly and entirely depends the color or complexion of the individual. In the negro, this mucous paste is jet black; in the Indian, copper-colored; in the Spaniard, yellowish; but white in the white variety of our species. This pigment is constantly flowing out upon the skin, to defend its irritable surface against the combined influence of the air, light, and heat. These agents, however, exert an action upon the mucous coloring, which dries, becomes hard and insensible, and is continually wearing off, and as constantly renewed.

*Scarf Skin.*—A familiar example of the scarf skin, the exterior coat of all, is observable in blisters. It is totally insensible, rough, and by no means of a uniform thickness. In the palms of the hands, and soles of the feet, it becomes prodigiously thickened, to defend the tender parts below. This scarf skin is

constantly wearing off, and as constantly renewed, and hence it is inferred that it is really nothing more than a *reta mucosum*, thrown off by the action of the excretory vessels.

The query may arise, why, if this is the case, are not the palms of the negro's hands perfectly black? They would be so if the scarf skin in them had not lost its vitality. When the negro has suffered from a severe burn, the mouths of the ducts which poured out the coloring matter, are sealed up by the subsequent inflammation, so that no more paint is thrown out, and the scar remains white. The reason is plain; the true skin, which is white, is no longer obscured by the black pigment.

Rouge, pearl powder, cream of almonds, milk of roses, cologne, spirit of wine, and, indeed, the endless catalogue of cosmetics, which are sold in the shops with the ostensible object of beautifying the skin, are abominable impositions, which ought to be interdicted, by a strict police regulation, till the happy period arrives when common sense is more frequently exercised on the subject of personal appearance. The skin cannot be permanently whiter, nor can the hair be stained without injuring it; a roseate tint cannot be given to the cheek, by any preparation, that will be abiding. All this class of pretended beautifying articles positively injure the skin, leaving it rougher; and, in old age, in consequence of their habitual application, the face is more thickly wrinkled, and the complexion assumes the hard, dead

color of bronze. Still worse, the pores are deranged in their functions, and disease may be induced by the absorption of some of the ingredients of those noxious importations which were never good for any thing but to fill the manufacturer's purse at the expense of those who are willing to be dupes of their own folly. Cold water is a cosmetic, and should be used exclusively.

The physiology of the nails, which are supposed to be a production of the scarf skin, is not well understood. Writers have not given a satisfactory explanation of their origin or growth.

With respect to the hair, its growth bears a striking analogy to vegetables, inasmuch as it rises from a bulbous root, imbedded in the skin, into which a gelatinous fluid is secreted. It would be entirely unnecessary to detail the opinions of authors on this subject, or to be very particular in relating our own.

### *The Heart.*

The most important function of the living body is *the circulation of the blood*. Its primary agent is the *heart*, a hollow involuntary muscle, situated in the left side of the chest, and endowed with great irritability. This singular organ is said "to be the first part that moves, and the last that dies," of the animal machine. By destroying an animal with a little prussic acid, it is observable that the motion of the heart not only survives that of the organ of voluntary



motion, but continues a considerable time even after it is separated from the body. Hence in drowning or suffocation, though the pulse be imperceptible and apparently extinguished, yet the heart still preserves this latent power, or susceptibility of motion, and wants only to be gently excited by suitable means to renew its action.

This *organ*, the heart, is surrounded by the *pericardium* or *capsule*, an exceedingly strong membrane which covers it even to its basis. Its uses are to direct the heart in its motions, to afford it liberty, and to prevent friction by secreting a fluid which lubricates its surface.

From the right *ventricle*, or cavity of the heart, the irritability of which is excited into action by the circulating fluid, the blood is propelled through *the lungs*, which are situated on the right and left side of the heart. They are divided into two lobes, and these into more divisions.

The heart is the grand organ which actuates the vital functions; and to this purpose it is admirably fitted by its own irritability: but it is necessarily supported in its action by the powerful influence of the nerves, which are the ultimate instruments both of motion and sensation, and have their origin in the brain.

### *The Trachæa.*

The *trachæa*, or *windpipe*, descends into the lungs



and form innumerable cells, which have a communication with each other, and give the whole the appearance of a honey-comb or sponge. The blood in its passage through the lungs undergoes a peculiar change, giving off carbonaceous matter and assuming a vermilion hue. It returns again to the heart by the *pulmonary veins*, and is propelled from the left *ventricle* or cavity into the aorta, or great artery, which, giving off branches, disperses the nutrimental stores to the meanest member and minutest part of the body. When this vital fluid has pervaded every part, and given each its proper juice, it is met by the ends of the veins, and by them reconducted to the heart.

### *The Diaphragm.*

A fleshy and membranous *septum*, called the *diaphragm* or midriff, parts the cavity of the thorax or chest from the cavity of the abdomen or belly. This midriff is, like the heart, in constant motion, being a muscle of both voluntary and involuntary action. It is a chief agent in respiration; when its fibres contract, its convex side towards the thorax becomes flat, and by thus increasing the cavity allows a complete dilation of the lungs by the air filling them in respiration. The fibres of the diaphragm then relax, and the cavity being diminished, the air is driven out, and this is termed expiration. The diaphragm acts in assisting various efforts of nature;—and coughing, sneezing, gaping, sighing and weeping, could not take place without its assistance.

### *Mouth.*

The parts which compose the mouth are the *lips*, *cheeks*, *palate*, *tongue*, *teeth*, and *salivary glands*. The form of the mouth is not always the same, but undergoes remarkable changes from the earliest period of life to extreme old age.

### *Salivary Glands.*

There are three glands about the cavity of the mouth and lower jaw, which secrete, or form, the saliva; and are hence called the salivary glands—they are the *parotid*, *sub-maxillary*, and *sub-lingual glands*.

### *Teeth.*

The teeth are the hardest parts of the body, and in their chemical character they resemble bone. They are composed of two parts, the bony substance and the enamel, and their number in adult is thirty-two. Their most important office is to masticate the food; and the want of teeth, or the neglect of using them, is a very common cause of disordered digestion.

### *Pharynx.*

The pharynx is a muscular bag at the back of the mouth, of a funnel shape; its use is to convey the masticated food into the stomach. It derives its

name from its office; its length is about four inches, and its greatest diameter, when moderately distended, one inch.

### *The Œsophagus*

Or gullet, is a membraneous and muscular bag, extending from the bottom of the mouth to the stomach. The inner surface is a smooth membrane, well supplied with mucilage to sheath the organ, and render the passage of the aliment or food more easy.

### *The Stomach*

Lies across the upper part of the abdomen, and beneath the liver. It somewhat resembles in figure the pouch of a bagpipe, its upper side being concave and the lower convex. Its left end is the largest, and on this side is the entrance from the gullet; on the right side is the opening called the pylorus, by which the chyme passes into the intestines. The stomach has been emphatically denominated the conscience of the body: it will convey action to the most remote part of the system for its benefit, and will be also affected by sensations induced on different parts distant from itself,—so close is its union with other parts, and its sympathy with the well-being of our frame.

Although the stomach is called a membraneous sack, it is composed, according to Meckel, of four distinct coats.

The first, externally, is the *serous* coat—so called because it secretes, or exhales, a serous, or watery fluid.

The second is the *muscular*, which is very strong; and this again is composed of three distinct layers of muscular fibres.

The third is the *vascular* coat, and lies internal to the other.

The fourth is the *villous* coat, which is thin, soft, and spongy; it is also called the mucous membrane, because it secretes a mucous, semi-fluid substance. This latter membrane is continuous with the whole of the alimentary canal—from the mouth to the other extremity—though in the stomach it assumes a more villous, or velvet-like appearance.

The stomach presents sexual difference; being larger, shorter, and broader in the male; smaller, narrower, and longer in the female. Dr. Soemering has shown that the stomach of the negro is different from that of the European, being of a more rounded form, approaching that of an ape.

#### *Valve of the Pylorus.*

At the pylorus is situated a valve, formed by the folding in of the membranes, which closes this orifice during digestion, and performs the office of Janitor or door keeper; for it allows the food in the stomach to pass through, in proportion as it is digested.

*The Intestines*

Are destined to receive the food from the stomach, and, after exposing the useful part of it to the lacteals, a set of extremely small vessels, convey the remainder of it into the body. The intestinal canal is usually six times the length of the individual; it is curiously convoluted and is extremely irritable. Though but one long circumlocuted canal, the upper portion is called the small intestines, and the lower part the large intestines. In the small intestines there are numerous plaits to detain the food, and allow a larger surface for absorption. These are larger and far more numerous near the stomach, where the food is thinner, than they are towards the other extremity. At the entrance of the small intestines into the large, there is found a valve which permits the food to descend, but opposes its return.

*Small Intestines.*

The small intestines is divided into *duodenum*, *jejunum*, and *ileum*, and is the narrowest portion of the alimentary canal. It is situated between the stomach and large intestine, and is uninterruptedly continuous with both, although separated by two valvular folds.

The commencement of the small intestine is called the *duodenum*, and sometimes the second stomach, and is situated on the right half of the abdomen.

The small intestines secretes a mucous liquid, this becomes incorporated with the bile and pancreatic juice, and forms a fluid, which by their united influence, separates the chyme or food received from the stomach, into two portions, chyle and fecal. The chyle which has now the chemical properties of blood, is taken up by the lacteals and carried into the circulation, and transmitted to every part of the system for its nourishment and support.

### *Large Intestines.*

The large differs from the small intestines in form, situation, attachments, etc. Its functions are similar to those of the small intestines, and its different portions are known by the names of *cæcum*, *colon*, and *rectum*.

### *The Liver*

Is the largest gland in the body, situated immediately under the vaulted cavity of the midriff, chiefly on the right side and somewhat on the left, over the stomach. It is suspended and maintained in its situation by various bands called ligaments. The ancients thought the liver was destined to prepare and perfect the blood, but it is now evinced to be a glandular substance, for the secretion of the bile.

### *The Pancreas,*

Or sweetbread, is situated transversely under the

stomach. Its shape resembles a dog's tongue. Along the whole length of it there is a duct, which terminates in the upper part of the intestines near the stomach. Its liquor is mild and insipid, somewhat like saliva, and serves to dilute the alimentary pulp, and to incorporate more easily with the bile.

### *The Spleen,*

Or milt, is situated in the left side, immediately under the edge of the midriff, above the left kidney, and between the stomach and false ribs. Its use is still problematical.

### *The Gall Bladder*

Is a little bag of a pyriform shape, situated under the great lobe of the liver. Its fundus is raised by a fulness and depressed by the emptying of the stomach. Its use is to serve as a receptacle for the bile.

### *The Kidneys*

Are two, situated in the loins, contiguous to the two last ribs; the right under the liver and the left under the spleen. Their structure is curiously fitted for secreting the urine which is conveyed from each of them by canals, termed the *ureters*, into the bladder, the reservoir of that fluid, situated in the lower part of the belly. The ureters are curved in their course to the bladder, which they enter obliquely, which promotes the discharge, while its return is prevented.



*The Peritoneum.*

The last of all comes the *peritoneum*—a strong membrane, capable of considerable extension. It prevents the attrition of the viscera upon each other, and envelopes almost the whole of them. Over the upper part of the abdomen is spread the *omentum*, or caul, consisting of duplicatures of peritoneum, joined together by cellular tissue, in the cells of which a quantity of fat is deposited. It hangs down loose, and floats on the surface of the intestines; its softness prevents adhesion of the viscera and serves other important uses.

Such is a general view of an organized body endowed with the principle of motion, and furnished with the power of nutrition.

*The Sensitive Faculties*

Are next to be displayed. The offices of the *brain*, whatever may be their number and diversity, and however different they may appear from all the other phenomena of life, are the effects of stimuli as well as those of the body; and the more the *mind* is excited to action the more is *vitality* exhausted. The *mind* has a very great influence on the body, and impressions made upon the one instantly affect the other: the principle that gives all our sensation, when much affected by the operations of the mind, becomes weakened if the intellectual faculties are



acted upon by reflection, or impression of any kind to excess. It is not surprising, therefore, that debility of the system is induced from too much thought and intense study. The brain is the organ of the mind, and the great laboratory where the nervous influences which actuate our frame, are supposed to receive their existence.

### *The Skull*

Is the receptacle of the brain. It is divided into two portions, the *celebrum* and *celebellum*; the former situated in the front and lateral part of the skull, and the latter in the posterior part and under it. All the *nerves* derive their origin from the brain and spinal cord, which is only an elongation of the brain, and are spread over every part of the body endowed with sensibility, by innumerable filaments. Nine pair of nerves issue from the brain itself, and thirty-one from the spinal marrow. They are white, firm, fibrous cords, found accompanying the arteries in their course, and generally lying external to them, in order that they may warn us of approaching injury before it has penetrated a vital part. The nerves are supposed to be tubular, containing an exquisitely fine and active fluid elaborated from the brain, by which a communication is maintained with every part of the system.

Whether an immaterial and visible being can positively be said to exist in any place, it might appear presumptuous to determine: but it is the prevailing

opinion in physiology that the brain is the seat of the soul. Human vision can discover no signs to confirm this opinion, as we know nothing of the soul beyond what revelation has informed us; we have no chemical test that can reach its essence; no glasses that can trace its mode of union with the brain; but the man would be blind, and utterly void of understanding, who could not trace through the whole of the animal system the most evident marks of *Divine intelligence* and wisdom; of intelligence which excites admiration, and of wisdom beyond conception.

The wonderful contrivance exhibited in the human frame is, if possible, still more manifest from the curious formation of the *eye* and *ear*; of which only a very imperfect idea could be conveyed by verbal description. The apparatus of vision and of hearing is extremely complicated; in the other senses it is very simple. The senses alone inform us of our existence: they establish our relation with surrounding objects, and are the sources of all our pleasure and pain. By *sight* man's enjoyments are diffused into a wide circle: that of *hearing*, though less widely diffused, nevertheless extends his powers. The sense of *smelling* is more contracted still; and the *taste* and *touch* are the most confined of all. Without the *eye*, the book of nature would have been no better than a vast unmeaning blank; without the *ear*, the music of the woods must degenerate into sullen silence. Without the sense of *smell*, the

breath of flowers and fields must lose their reviving fragrance; and fruits of every radiant hue would hang suspended on the boughs, but all in vain for us, if kind Providence had not endued us with a sense of *taste*.

We shall conclude this imperfect sketch of the human body with a brief account of *digestion*—that most important process in the animal economy—by means of which the continual and unavoidable waste of the constitution is regularly supplied. If we may judge of the importance of any function, says a celebrated physiologist, from the number and variety of the organs that are essential to it, digestion ought to be placed in the front rank; no other function of the animal economy presenting so complicated an apparatus. The aliment being received into the mouth, the first operation it undergoes is to be masticated by the action of the teeth and several muscles. This *mastication* is of greater moment than is generally imagined; and the good effects of it are further promoted by mixing with the food a quantity of *saliva*, secreted by the glands of the mouth, and which is greatly conducive to digestion. When the food is carried down the gullet, it there meets with an additional supply of juices of a nature yet more efficacious than the former. During its continuance in the stomach, it experiences the effects of heat and muscular action from the coats of that organ and surrounding parts; and co-operates with the *saliva* and *gastric* juice in transforming the aliment into *chyme*.

It thence passes out gradually by the right orifice of the stomach, and there receives a quantity of bile from the *gall bladder* and *liver*, besides the *pancreatic juice*, and fluids secreted by the intestines. It now receives the action of the bowels or the peristaltic motion, by which they churn, as it were, the whole mass; minutely mixing together the food and the different juices collected in its passage from the mouth. A fluid is now produced called *chyme*, which is separated from the grosser materials, and taken up by a set of extremely small absorbent vessels called *lacteals*. These have their origin in the inner coat of the intestines, and passing thence, discharge themselves into a duct named the *receptacle of the chyme*; whence this fluid proceeds along the *thoracic duct*, which terminates in a *large vein* near the neck. To prevent the *chyle* from falling back in its progress through the *lacteals*, the construction of the vessels is admirably contrived. They are furnished with a number of *valves*, which open only forwards, and are shut by any fluid pressing backwards. From the *left sub-clavian vein*, the *chyle* is poured into the blood, and thence immediately thrown into the right auricle and ventricle of the heart, from which, now mixed with the blood, it passes into the lungs. It undergoes in that organ a considerable change from the act of respiration. From the lungs it returns through the pulmonary veins to the left auricle of the heart, and then into the left ventricle; whence, endowed with all the qualities of blood, it passes

into the oarta, and is diffused universally through the frame; the wants of which it is fitted to supply by the addition of nourishing particles.

Is it possible to contemplate this admirable mechanism without bursting forth in the exclamation of the Psalmist:—" *I am fearfully and wonderfully made:*" or in the language of Galen, who exclaimed, "*Herein I acknowledge and praise my Creator, that he has been pleased to adorn his works beyond the power of art.*" We may justly add, that, considering the great variety of ways in which the human body may be affected, both from without and within; with the necessity for the perpetual motion of the vital powers, the millions of vessels, invisible to the naked eye, through which the fluids ought to pass, it is a matter of real astonishment that we should subsist a single day; and doubtless it would be impossible, were not the machine constantly sustained by the same Almighty and Beneficent Being who formed it.

## INTRODUCTION.



Having given a short description of the Structure of the Human Body, and the Vital Organs, I will next proceed to give my observation on the Cause of Disease, and the best method of cure, with remarks on the nature of the Aliment and the choice of them; their different effects, advantages and disadvantages explained.

## CHAPTER II.

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### *Diseases and their principal predisposing Causes.*

*Abscesses.*—Derived from scrofula, cancer, and phlegmatic disease, &c.

*Acidity.*—Vinegar, acid fruits, and vegetables in a crude state.

*Anasarca.*—Acrid substances and blood-letting.

*Asthma.*—Acrid substances, bad butter, and a cold humid atmosphere.

*Barrenness.*—Acrid and acid food, particularly buttercup butter, producing inflammation of the kidneys and adjacent parts.

*Blindness.*—Scrofula, poisonous food and medicine.

*Blood, Spitting of.*—Acrid substances which disease the blood vessels, particularly the buttercup, poppy, and mercury.

*Bloody Flux.*—Acrid fruit, mercury, putrid vegetables, and animal substances.

*Brain, Inflammation of the.*—Salt, acid, acrid, and narcotic substances, taken into the circulation.

*Carbuncle.*—The substances which occasion cancer.

*Chilblains.*—Salt, acid substances, and frost.



- Cholera Morbus*.—Unripe acrid fruits and rice, passing into the putrefactive fermentation in the stomach and bowels.
- Chicken Pox*.—Poisonous virus contained in the mother's milk, as also the milk of the cattle.
- Cold and Cough*.—Acrid food, salt, bad butter, and fat ; getting wet, exposure to a current of cold air, and damp beds. The above elements acting upon and causing the mucous membrane to inflame with a discharge of ichor and mucous.
- Cow Pox*.—The buttercup virus oozing through the cow's teats.
- Crooked Spine*.—Tonics given upon an acid stomach, producing muscular contraction.
- Cramp*.—Salt, acid and acrid substances, and particularly mercury.
- Croup*.—Acid and acrid substances, called into action in the windpipe by the ingress of humid air.
- Deafness*.—By using mercury upon an acid or acrid stomach, and washing the head with cold water while under its influence ; or malformation ; and excess in the use of salt.
- Diabetes*.—By crudities, acrids, unwholesome vegetables, and excessive use of mercury.
- Dropsy*.—A scrofulous habit of body, blood-letting, indigestion, inactive kidneys, and suppressed perspiration.



*Epilepsy*.—Acrid, narcotic, and corrosive substances, and taking mercury upon an acrid stomach.

*Fainting Fits*.—Acrid watery food, pressure on the vital organs, and extreme debility.

*Flatulency*.—Disease of the mucous membrane, stomach, and intestines, produced by acrid and putrid ferments, causing inflammation and corrosion of the absorbent system.

*Fevers :*

*Bilious*.—Bad butter, the fat of meat, and other acrid substances.

*Intermittent*.—Putrid vegetable and animal substances, contained in marshy or argillaceous water, and used for drink and cooking.

*Miliary*.—Poisonous substances contained in the milk, butter, and the fat of meat, excited by hot liquids and regimen.

*Putrid*.—Putrid fermentation, produced by the use of putrid waters used as drink, and for cooking in hot climates, and a deficiency of electricity in the atmosphere, and unsound animal and vegetable substances.

*Remittent*.—Ulceration in the stomach and intestines, caused by bad butter, the fat of meat, acrid substances, and bad water.

*Scarlet.*—The poisons received through the mother's milk.

*Typhus.*—Potatoes and other acrid substances, particularly in wet seasons.

*Yellow.*—Putrid water and food, and a deficiency of electricity in the atmosphere.

*Gangrene.*—Acrid and corrosive poisons, and putrid ferments in the stomach, from the use of animal food.

*Gravel and Stone.*—Vinegar and acid food, combined with lime, passing through and forming calculi in the glands and other parts of the body.

*Green Sickness.*—Acrid and unripe fruits, buttercup butter.

*Gout, common.*—Grapes made into wine.

“ *chalky.*—Currants eaten or made into wine.

“ *rheumatic.*—Wine, salt, bad butter, and cold damp.

*Hæmoptysis.*—Acrid substances, particularly the poppy and buttercup.

*Hæmorrhage.*—Acrid substances, particularly buttercups, poppies, and the juices of lactescent vegetables.

*Hooping Cough.*—Disease of the mucous membrane, produced from acrid substances. Known by a spasmodic or convulsive cough.

*Hypocondriasis.*—From indigestion and the same causes that produce it.

*Hysterics*.—Indigestion or acrid and corrosive food, particularly that poisonous plant the *ranunculus illyricus*.

*Inflammation*

Of the Articular.

Bladder.  
Bowels.  
Edematous.  
Erysipelatous.  
Eyes.  
Gangrenous.  
Heart.  
Iris.  
Kidney.  
Larynx.  
Liver.  
Lungs.  
Muscles.  
Nerves.  
Pleura.  
Spleen.  
Stomach.  
Testicles.  
Throat.  
Vesicular.  
Womb.

If mankind would live agreeably to the laws of nature, there would be no such thing as inflammation, except that arising from bruises, burns, and accidental circumstances, not connected with aliment, and which would be sooner healed by applying appropriate remedies ; but it is not so, nor will it be otherwise while we live upon salt, acid, acrid, putrid, corrosive, and narcotic poisons, which are taken into the system through the food and medicine.

*Insanity*.—Mercury, given on an acrid stomach, buttercup butter, the fat of meat, and the consequences of using cold water, when under the influence of mercury, and of uniting all three, thus heightening the power of mercury into a corrosive poison.

*Itch.*—By an insect the *acarus sero* of Linnæus.

*Leprosy.*—The use of pork fed on putrid animal and vegetables substances.

*Lumbago.*—Salt, acid and acrid substances, diseasing the kidneys; and exposure to cold.

*Measles.*—The poisonous virus received through the mother's milk, and the milk of cattle.

*Mortification.*—From the immoderate use of bad spirits, and the food passing into the putrefactive fermentation in the stomach.

*Mildew.*—The ergot or spurred rye.

*Nervous Disorders.*—Immoderate use of tea, adulterated bread, and buttercup butter, and the use of mercury.

*Nettle Rash.*—Acidity in the stomach.

*Night Mare.*—Fulness of blood, bad pork, and acrid substances.

*Ophthalmia, common.*—Acids, vinous liquors, acidity in the stomach, and long exposure to strong light and cold air.

“ *Pirulent.*—Scrofula.

*Ophthalmia, Egyptian.*—Animalcule in spoiled lemon juice, putrid salt provisions, and mercury.

*Palpitation.*—Acrid substances, particularly the properties of poppies conveyed through butter and the fat of meat, or in the form of opium; and the use of mercury.

*Piles.*—Acrid and corrosive substances, more particularly those contained in resinous plants, such as the aloe, &c.

*Pleurisy*.—Acids, new adulterated spirits, and salt, producing inflammation by inhaling cold and moisture.

*Quinsy*.—Salt, acrid substances and butter. The Malignant quinsy which causes ulceration is from the use of the last article, and the ingress of cold air, which stimulates and makes the tonsils to enlarge and inflame.

*Rheumatism, common*.—Acid and salt, and exposure to cold.

“ *Mercurial*.—Mercury, and washing with cold water while under its influence.

*Ringworm*.—Insects.

*Saint Vitus's Dance*.—An acrid stomach, and the constitution being charged with mercury.

*Sciatica*.—Acids, mercury, and buttercup butter, affecting the nerves; and new adulterated spirits.

*Scurvy*.—The excessive use of salt.

*Small Pox*.—Not known to the Greeks and Romans, nor in America until it was introduced by poisonous weeds and cattle, taken from Europe. Caused by animalcule and acrid poisons received through the milk of cattle, and producing the disorder.

*Strangury*.—Buttercups, cantharides, and other acrid substances.

*Suppression of the Menses*.—Powerful tonics given on an acrid stomach, and taking cold.

*Vomiting.*—Indigestion and poisonous substances taken into the stomach.

“ *of Blood.*—Putrid ferments, cancer and inflammation.

*Water on the Brain in Children.*—Corrupt state of the mother's milk, producing inflammation in the brain, which causes the secretion of the lymph.

*White Swelling.*—Scrofula, causing an enlargement and caries of the joint.



## CHAPTER III.



### *Remarks on Food.*

THE state of the stomach gives us pleasure or pain, indeed cheerfulness depends very much upon a good state of the stomach. Food hard of digestion makes us feel very uncomfortable, and a continued bad digestion shortens life. Therefore the substances which are taken into the stomach to support life; the proper quantity and quality of our food is one of the most important subjects that can present itself to our consideration. If it contains too much nutriment it clogs and overloads the digestive organs, and is productive of a formidable class of diseases; if deficient in nutriment, the muscles become soft and flabby, the strength fails, and if long continued, emaciation ensues. The food then to produce its proper effect must possess two conditions; one is, that of sufficient bulk to keep the stomach properly distended, without which its functions are impaired; the other condition is that sufficient nutritive substance be taken into the stomach and converted into chyle as will repair the wear and tear of the system. The best diet for man is a mixture of animal and vegetable food. Indian corn alone or

pure wheaten flour has too much nutriment for health. Much of the value of our food depends on the ease with which it can be digested and applied to the support and nourishment of the body. I will give here the interesting experiments of Dr. Beaumont which furnish the best guide to the selection of our food that has ever been known.

Dr. Beaumont, while stationed at Michilimackinac, in the Michigan territory, in 1822, in the military service of the United States, was called upon to take charge of Alexis St. Martin, a young Canadian of eighteen years of age, good constitution, and robust health, who was accidentally wounded by the discharge of a musket on 6th June, 1822.

“The charge,” says Dr. Beaumont, “consisting of powder and duck-shot, was received in the left side, at the distance of one yard from the muzzle of the gun. The contents entered posteriorly, and in an oblique direction, forward and inward: literally blowing off integuments and muscles to the size of a man’s hand, fracturing and carrying away the *anterior half of the sixth rib, fracturing the fifth, lacerating the lower portion of the left lobe of the lungs, the diaphragm, and* PERFORATING THE STOMACH.”

On the fifth day sloughing took place; lacerated portions of the lung and stomach separated, and left a perforation into the latter “large enough to admit the whole length of the middle finger into its cavity: and also a passage into the chest half as large as his fist.”



Violent fever and farther sloughing ensued; and for seventeen days every thing swallowed passed out through the wound, and the patient was kept alive chiefly by nourishing injections. By-and-by the fever subsided, the wound improved in appearance, and after the fourth week the appetite became good, digestion regular, the evacuations natural, and the health of the system complete. *The orifice, however, never closed*; and at every dressing the contents of the stomach flowed out, and its coats frequently became everted or protuded so far as to equal in size a hen's egg, but they were always easily returned.

On 6th June 1823, a year from the date of the accident, the injured parts were all sound except the perforation into the stomach, which was now two and a half inches in circumference. For some months thereafter the food could be retained only by constantly wearing a compress and bandage; but early in winter, a small fold or doubling of the villous coat began to appear, which gradually increased till it filled the aperture, and acted as *a valve*, so as completely to prevent any efflux from within, but to admit of being easily pushed back by the finger from without.

Here, then, was an admirable opportunity for experimenting on the subject of digestion, and for observing the healthy and undisturbed operations of nature free from the agony of vivisections, and from the sources of fallacy inseparable from operating on animals. Dr. Beaumont was sensible of its value, and accordingly pursued his enquiries with a zeal, per-

severance, and disinterestedness highly creditable to his character both as a man and as a philosopher.

Dr. Beaumont began his experiments in May, 1825, and continued them for four of five months, St. Martin being then in high health. In the autumn, St. Martin returned to Canada, married, had a family, worked hard, engaged as a voyageur with the Hudson's Bay Fur Company, remained there four years, and was then engaged at a great expense by Dr. Beaumont to come and reside near him on the Mississippi, for the purpose of enabling him to complete his investigations. He came accordingly in August, 1829, and remained till March, 1831. He then went a second time to Canada, but returned to Dr. Beaumont in November, 1832, when the experiments were once more resumed, and continued till March, 1833, at which time he finally left Dr. Beaumont. He now enjoys perfect health, but the orifice made by the wound remains in the same state as in 1824.

The following table exhibits the general results of all the experiments made upon St. Martin posterior to 1825; and the average is deduced from those which were performed when the stomach was considered by Dr. Beaumont to be in its natural state, and St. Martin himself subjected to ordinary exercise.

*TABLE showing the Mean Time of Digestion of the different Articles of Diet.*

| Article of diet.               | Mode of Preparation.  | Time required for Digestion. |    |
|--------------------------------|-----------------------|------------------------------|----|
|                                |                       | H.                           | M. |
| Rice . . . . .                 | Boiled . . . . .      | 1                            |    |
| Sago . . . . .                 | Do. . . . .           | 1                            | 45 |
| Tapioca . . . . .              | Do. . . . .           | 2                            |    |
| Barley . . . . .               | Do. . . . .           | 2                            |    |
| Milk . . . . .                 | Do. . . . .           | 2                            |    |
| Do. . . . .                    | Raw . . . . .         | 2                            | 15 |
| Gelatine . . . . .             | Boiled . . . . .      | 2                            | 30 |
| Pigs' feet, soused . . . . .   | Do. . . . .           | 1                            |    |
| Tripe, soused . . . . .        | Do. . . . .           | 1                            |    |
| Brains . . . . .               | Do. . . . .           | 1                            | 45 |
| Venison steak . . . . .        | Broiled . . . . .     | 1                            | 35 |
| Spinal marrow . . . . .        | Boiled . . . . .      | 2                            | 40 |
| Turkey, domestic . . . . .     | Roasted . . . . .     | 2                            | 30 |
| Do. Do. . . . .                | Boiled . . . . .      | 2                            | 25 |
| Do. wild . . . . .             | Roasted . . . . .     | 2                            | 18 |
| Goose . . . . .                | Do . . . . .          | 2                            | 30 |
| Pig, sucking . . . . .         | Do. . . . .           | 2                            | 30 |
| Liver, beef's fresh . . . . .  | Broiled . . . . .     | 2                            |    |
| Lamb, fresh . . . . .          | Do. . . . .           | 2                            | 30 |
| Chicken, full-grown . . . . .  | Fricassee . . . . .   | 2                            | 45 |
| Eggs, fresh . . . . .          | Hard boiled . . . . . | 3                            | 30 |
| Do. do. . . . .                | Soft do. . . . .      | 3                            |    |
| Do. do. . . . .                | Fried . . . . .       | 3                            | 30 |
| Do. do. . . . .                | Roasted . . . . .     | 2                            | 15 |
| Do. do. . . . .                | Raw . . . . .         | 2                            |    |
| Do. whipped . . . . .          | Do. . . . .           | 1                            | 30 |
| Custard . . . . .              | Baked . . . . .       | 2                            | 45 |
| Codfish, cured, dry . . . . .  | Boiled . . . . .      | 2                            |    |
| Trout, Salmon, fresh . . . . . | Do. . . . .           | 1                            | 30 |
| Do. do. do. . . . .            | Fried . . . . .       | 1                            | 30 |

TABLE showing Mean Time of Digestion, *continued.*

| Articles of Diet           | Mode<br>of<br>Preparation | Time re-<br>quired for<br>Digestion. |    |
|----------------------------|---------------------------|--------------------------------------|----|
|                            |                           | H.                                   | M. |
| Bass, striped, fresh . . . | Broiled . . . .           | 3                                    |    |
| Flounder do. . . .         | Fried . . . .             | 3                                    | 30 |
| Catfish do. . . .          | Do. . . . .               | 3                                    | 30 |
| Salmon, salted . . . .     | Boiled . . . .            | 4                                    |    |
| Oysters, fresh . . . .     | Raw . . . . .             | 2                                    | 55 |
| Do. do. . . . .            | Roasted . . . .           | 3                                    | 15 |
| Do. do. . . . .            | Stewed . . . .            | 3                                    | 30 |
| Beef, fresh, lean, rare    | Roasted . . . .           | 3                                    |    |
| Do. do. dry . . . .        | Do. . . . .               | 3                                    | 30 |
| Do. steak . . . . .        | Broiled . . . .           | 3                                    |    |
| Do. with salt only . . .   | Boiled . . . . .          | 2                                    | 45 |
| Do. with mustard, &c.      | Do. . . . .               | 3                                    | 30 |
| Do. fresh, lean . . . .    | Fried . . . . .           | 4                                    |    |
| Do. old, hard, salted      | Boiled . . . . .          | 4                                    | 15 |
| Pork steak . . . . .       | Broiled . . . .           | 3                                    | 15 |
| Pork, fat and lean . . .   | Roasted . . . .           | 5                                    | 15 |
| Do. recently salted . . .  | Boiled . . . . .          | 4                                    | 30 |
| Do. do. do. . . . .        | Fried . . . . .           | 4                                    | 15 |
| Do. do. do. . . . .        | Broiled . . . .           | 3                                    | 15 |
| Do. do. do. . . . .        | Raw . . . . .             | 3                                    |    |
| Do. do. do. . . . .        | Stewed . . . .            | 3                                    |    |
| Mutton, fresh . . . . .    | Roasted . . . .           | 3                                    | 15 |
| Do. do. . . . .            | Broiled . . . .           | 3                                    |    |
| Do. do. . . . .            | Boiled . . . . .          | 3                                    |    |
| Veal, fresh . . . . .      | Broiled . . . .           | 4                                    |    |
| Do. do. . . . .            | Fried . . . . .           | 4                                    | 30 |
| Fowls, domestic . . . .    | Boiled . . . . .          | 4                                    |    |
| Do. do. . . . .            | Roasted . . . .           | 4                                    |    |
| Ducks do. . . . .          | Do. . . . .               | 4                                    |    |
| Do. wild . . . . .         | Do. . . . .               | 4                                    | 30 |
| Suet, beef, fresh . . . .  | Boiled . . . . .          | 5                                    | 03 |
| Suet, mutton . . . . .     | Do. . . . .               | 4                                    | 30 |

TABLE showing Mean Time of Digestion, *continued*.

| Articles of Diet.                              | Mode<br>of<br>Preparation. | Time re-<br>quired for<br>Digestion. |    |
|------------------------------------------------|----------------------------|--------------------------------------|----|
|                                                |                            | H.                                   | M. |
| Butter . . . . .                               | Melted . . . . .           | 3                                    | 30 |
| Cheese, old, strong . .                        | Raw . . . . .              | 3                                    | 30 |
| Soup, beef, vegetables,<br>and bread . . . . . | Boiled . . . . .           | 4                                    |    |
| Do. marrow-bones . .                           | Do. . . . .                | 4                                    | 14 |
| Do. beans . . . . .                            | Do. . . . .                | 3                                    |    |
| Do. barley . . . . .                           | Do. . . . .                | 1                                    | 30 |
| Do. mutton . . . . .                           | Do. . . . .                | 3                                    | 30 |
| Green corn and beans .                         | Do. . . . .                | 3                                    | 45 |
| Chicken soup . . . . .                         | Boiled . . . . .           | 3                                    |    |
| Oyster soup . . . . .                          | Do. . . . .                | 3                                    | 30 |
| Hash, meat and vegeta-<br>bles . . . . .       | Warmed . . . . .           | 2                                    | 30 |
| Sausage, fresh . . . .                         | Broiled . . . . .          | 3                                    | 20 |
| Heart, animal . . . . .                        | Fried . . . . .            | 4                                    |    |
| Tendon . . . . .                               | Boiled . . . . .           | 5                                    | 30 |
| Cartilage . . . . .                            | Do. . . . .                | 4                                    | 15 |
| Aponeurosis . . . . .                          | Do. . . . .                | 3                                    |    |
| Beans, pod . . . . .                           | Do. . . . .                | 2                                    | 30 |
| Bread, wheaten, fresh .                        | Baked . . . . .            | 3                                    | 30 |
| Do. corn . . . . .                             | Do. . . . .                | 3                                    | 15 |
| Cake, do. . . . .                              | Do. . . . .                | 3                                    |    |
| Do. sponge . . . . .                           | Do. . . . .                | 2                                    | 30 |
| Dumpling, apple . . .                          | Boiled . . . . .           | 3                                    |    |
| Apples, sour and hard .                        | Raw . . . . .              | 2                                    | 50 |
| Do. do. mellow . . . .                         | Do. . . . .                | 2                                    |    |
| Do. sweet do . . . . .                         | Do. . . . .                | 1                                    | 30 |
| Parsnips . . . . .                             | Boiled . . . . .           | 2                                    | 30 |
| Carrot, orange . . . .                         | Do. . . . .                | 3                                    | 15 |
| Beet . . . . .                                 | Do. . . . .                | 3                                    | 45 |
| Turnips, flat . . . . .                        | Do. . . . .                | 3                                    | 30 |

TABLE showing Mean Time of Digestion, *continued*.

| Articles of Diet.        | Mode<br>of<br>Preparation. | Time re-<br>quired for<br>Digestion. |    |
|--------------------------|----------------------------|--------------------------------------|----|
|                          |                            | H.                                   | M. |
| Potatoes, Irish . . . .  | Boiled . . . .             | 3                                    | 30 |
| Do. do. . . .            | Roasted . . . .            | 2                                    | 30 |
| Do. do. . . .            | Baked . . . .              | 2                                    | 30 |
| Cabbage, head . . . .    | Raw . . . .                | 2                                    | 20 |
| Do. with vinegar . . . . | Do. . . .                  | 2                                    |    |
| Do. do. . . .            | Boiled . . . .             | 4                                    | 30 |

As a general rule, animal food is more easily and speedily digested, and contains a greater quantity of nutriment in a given bulk, than either herbaceous or farinaceous food; but, apparently from the same cause, it is also more heating and stimulating. *Minuteness of division*, and *tenderness of fibre*, are shown by Dr. Beaumont's experiments to be two grand essentials for the easy digestion of butcher-meat; and the different kinds of fish, flesh, fowl, and game, are found to vary in digestibility chiefly in proportion as they approach or depart from these two standing qualities.

Farinaceous food, such as rice, sago, arrow-root, and gruel, are also rapidly assimilated, and prove less stimulating to the system than concentrated animal food. Milk seems to rank in the same class, when the stomach is in a healthy state.

Animal food, it is true, affords a more stimulating nutriment than farinaceous and other kinds of vegetable aliment, and hence it is avoided in diseases of

excitement. But it seems to me that this stimulus is owing not only to its own inherent properties, but also to its more highly concentrated state, and to the much greater quantity of chyle which is derived from it than from an equal bulk of vegetable aliment.

Before concluding his experiments on the agents employed in digestion, Dr. Beaumont made many observations with a view to ascertain whether any increase of temperature occurred during that process. By introducing a thermometer with a long stem at the external opening into St. Martin's stomach, both before and during the chymification, he succeeded in obtaining very accurate information on this point. In two or three of the experiments the heat of the stomach seemed to be increased after taking food, but in by far the greater number the temperature remained the same. It appeared, however, that the variations of the atmosphere produced a sensible change on the heat of the stomach—a dry air increasing and a moist air diminishing it. The ordinary temperature may be estimated at 100° Fahr., and in several instances it was higher at the pyloric than at the cardiac end. On one cloudy, damp, and rainy day, the thermometer rose only to 94°, and on another to 96°; whereas next day when the weather was clear and dry, it rose to 99°, and on that following, when the weather was both clear and cold, to 100°. On several occasions it rose as high as 102°, and once to 103°; but these were after exercise, which was always observed to cause an increase of



two or three degrees. We have already seen that *artificial* digestion is entirely arrested by cold, and is resumed on raising the temperature to ordinary blood heat.

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*Inferences from Dr. Beaumont's Experiments and Observations, given in his own words.*

1. That *hunger* is the effect of *distention* of the vessels that secrete the gastric juice.
2. That the process of *mastication*, *insalivation*, and *deglutition*, in an abstract point of view, do not in any way affect the digestion of the food; or, in other words, when food is introduced directly into the stomach in a finely divided state, without these previous steps, it is as readily and as perfectly digested as when they have been taken.
3. That *saliva* does not possess the properties of an alimentary solvent.
4. That the *agent* of chymification is the *gastric juice*.
5. That the pure gastric juice is fluid, *clear*, and *transparent*; without *odour*; a little salt; and perceptibly *acid*.
6. That it contains free *muriatic acid*, and some other active *chymical* principles.
7. That it is never found *free* in the gastric cavity;



but is always excited to discharge itself by the introduction of *food* or other irritants.

8. That it is secreted from vessels distinct from the mucous follicles.
9. That it is seldom obtained pure, but is generally mixed with mucous, and sometimes with saliva. When pure, it is capable of being kept for months, and perhaps for years.
10. That it *coagulates* albumen, and afterward *dissolves* the *coagula*.
11. That it *checks* the progress of putrefaction.
12. That it acts as a *solvent* of food, and alters its properties.
13. That, like other chymical agents, it *commences* its action on food as soon as it comes in contact with it.
14. That it is capable of combining with a certain and fixed *quantity* of food, and when more aliment is presented for its action than it will dissolve, disturbance of the stomach, or "indigestion," will ensue.
15. That its action is facilitated by the *warmth* and *motions* of the stomach.
16. That it becomes intimately *mixed* and *blended* with the ingestæ in the stomach by the motions of that organ.
17. That it is *invariably* the *same substance*, modified only by *admixture* with other fluids.
18. That the motions of the stomach produce a con-

stant *churning* of its contents, and *admixture* of food and gastric juice.

19. That these motions are in two directions, *transversely* and *longitudinally*.
20. That *no other* fluid produces the same effect on food that gastric juice does; and that it is the *only solvent of aliment*.
21. That the action of the stomach and its fluids is the same on *all kinds* of diet.
22. That *solid* food, of a certain texture, is easier of digestion than *fluid*.
23. That *animal* and *farinaceous* aliments are more easy of digestion than *vegetable*.
24. That the susceptibility of digestion does not, however, depend altogether upon *natural* or *chymical* distinctions.
25. That digestion is facilitated by *minuteness of division*, and *tenderness of fibre*; and retarded by opposite qualities.
26. That the *ultimate principles* of aliment are always the same, from whatever food they may be obtained.
27. That *chyme* is *homogeneous*, but variable in its *color* and *consistence*.
28. That, towards the *latter* stages of chymification, it becomes more *acid* and *stimulating*, and passes more rapidly from the stomach.
29. That the *inner coat* of the stomach is of a pale *pink* color, varying in its hues according to its full or empty state.

30. That, in health, it is sheathed with mucous.
31. That the appearance of the interior of the stomach *in disease* is essentially different from that of its *healthy* state.
32. That stimulating *condiments* are injurious to the healthy stomach.
33. That the use of *ardent spirits always* produces disease of the stomach if persevered in.
34. That *water, ardent spirits*, and most other *fluids*, are not affected by the gastric juice, but pass from the stomach soon after they have been received.
35. That the *quantity* of food generally taken is more than the wants of the system require; and that such excess, if persevered in, generally produces not only functional aberration, but disease of the coats of the stomach.
36. That *bulk* as well as *nutriment* is necessary to the articles of diet.
37. That *bile* is not ordinarily found *in the stomach*, and is *not* commonly *necessary* for the digestion of food; but,
38. That when *oily* food has been used, it assists its digestion.
39. That *oily* food is difficult of digestion, though it contains a large proportion of the nutrient principles.
40. That the *digestibility* of aliment does not depend upon the *quantity* of nutrient principles that it contains.

41. That the natural temperature of the stomach is about 100° Fahrenheit.
42. That the temperature is *not elevated* by the ingestion of food.
43. That *exercise elevates* the temperature; and that *sleep* or *rest*, in a recumbent position, *depresses* it.
44. That *gentle exercise* facilitates the digestion of food.
45. That the time required for that purpose is various, depending upon the quantity and quality of the food, state of the stomach, &c.; but that the time ordinarily required for the disposal of a moderate meal of the fibrous parts of meat, with bread, &c. is from three to three and a half hours.

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According to the experiments of the distinguished French chemists, M. M. Percy, and Vauquelin, and others,

|          |                |         |    |          |              |
|----------|----------------|---------|----|----------|--------------|
| 100 lbs. | Lentils,       | contain | 94 | parts of | nourishment. |
| " "      | French Beans,  | 92      | "  | "        |              |
| " "      | Rice,          | 90      | "  | "        |              |
| " "      | Kidney Beans,  | 89      | "  | "        |              |
| " "      | Wheat,         | 85      | "  | "        |              |
| " "      | Barley,        | 83      | "  | "        |              |
| " "      | Good Bread,    | 80      | "  | "        |              |
| " "      | Rye,           | 80      | "  | "        |              |
| " "      | Meat, average, | 35      | "  | "        |              |
| " "      | Potatoes,      | 25      | "  | "        |              |

100 lbs. Carrots, contain 14 parts of nourishment.

|     |          |    |     |
|-----|----------|----|-----|
| " " | Beets,   | 14 | " " |
| " " | Turnips, | 8  | " " |
| " " | Cabbage, | 7  | " " |
| " " | Greens,  | 6  | " " |

*Wholesome Food for the Strong and Healthy.*

|                |              |               |              |
|----------------|--------------|---------------|--------------|
| Fresh Fish,    | Asparagus,   | Milk,         | Young fowls, |
| Rabbits,       | Toast,       | Chocolate,    | Spruce beer, |
| Calf's Head,   | Marrow,      | Onions,       | Pigeons,     |
| Spinage,       | Jellies,     | Lemonade,     | Preserves,   |
| Potatoes,      | Lamb,        | Cabbage,      | Tongues,     |
| Turnips,       | Dates,       | Mead,         | Barley,      |
| Boiled fruits, | Grapes,      | Tender Beef,  | Pudding,     |
| Broths,        | Cream,       | Partridges,   | Green peas,  |
| Soups,         | Mutton,      | Tarts,        | Melons,      |
| Lettuce,       | Squirrels,   | Buckwheat,    | Custards,    |
| Eggs,          | Venison,     | Tomatos,      | Sugar,       |
| Sago,          | Mush,        | Whortleber-   | Figs,        |
| Oysters,       | Carrots,     | ries,         | Prunes,      |
| Bread,         | Parsnips,    | Rice,         | Turtle,      |
| Veal,          | Cranberries, | Oranges,      | Almonds,     |
| Fowls,         | Raisins,     | Vermicelli,   | Honey,       |
| Chickenpie,    | Cocoa,       | Strawberries, |              |

Eggs are a wholesome and excellent article of food if soft boiled.

*Peas and Beans,*

Are very delicate and exceeding nutritious articles of food. The kidney bean is the best. The French bean is also very good.

*Mutton,*

Is easy of digestion, and possesses a good deal of nourishment. There is nothing suits a weak stomach better than broiled mutton chop, tenderly done, with a good roasted mealy potatoe.

*Beef.*

Good tender beef, broiled or roasted, is more nourishing than mutton, and easier digested.

*Fowl.*

Turkey and chickens, are excellent food ; wholesome, and easy digested ; wild fowl are particularly wholesome, and easy of digestion. Geese and Ducks are not so good for weak stomachs as other kind of fowl, on account of the great quantity of oily fat which they have.

*Fish.*

Fish affords but little nourishment, it is however good fresh, boiled or broiled, but not so good fried. Salt or smoked fish is very unwholesome, and should seldom or never be eaten.

*Tea,*

Is narcotic, stimulant, dilutent, astringent, heating, styptic, diuretic and sodurific. Drank strong and in



great quantities it affects the nervous system, and produces tremors, relaxes and weakens the tone of the stomach. Green tea is always more or less hurtful. Black tea, with good sweet milk and pure sugar, made weak, seems to agree with most stomachs, moderately helps degestion, and refreshes the body.

### *Coffee.*

Coffee contains a narcotic principal, a volatile and an essential oil, is aromatic and acrimonious, heating, stimulating, and drying, producing, when taken strong and impure, tremor of the nerves, palsies, leanness, watchfulness, and the want of vigor, and when drank very strong is deleterious to the health of every one. It becomes still more prejudicial to health, when ground and left exposed to the action of noxious air and moisture, in shops and kitchens, for it imbibes great quantities of poisonous gas from the atmosphere. Thus it becomes sour to the taste, and gives rise to acid stomachs. It may perhaps be made a very wholesome beverage. In France, Germany, Turkey, and the West Indies, the inhabitants are in the daily habit of drinking coffee, and we find as many aged people in those countries as in any other. When properly roasted all the noxious parts of the coffee separates and exhales, leaving the aroma pure. It is best never to roast it until you want it for use, keeping it always preserved from the



action of air and moisture. Milk lessens very much the bad qualities of coffee, and renders it soft and nutritious. The following is a good receipt for making coffee.

“ If you wish to procure a good cup of coffee, never send for that which is roasted and ground outside of your own house. See that your cook roasts your coffee every morning. Do not hurry it, but let it only be moderately *browned*. Let it be cooled in the roaster, air-tight, so that the aroma does not escape, and let it not be ground until wanted for the urn. Then, if well cleared, a goodly sized lump of best refined sugar, and a spoonful of cream, to a large cup—and mind that the china be white—will render the amber liquid fit to be swallowed by the grand Turk himself. If you have no cream, use milk, but be careful to boil it before you mix it with your coffee; and remember that the proportions between coffee and boiled milk are very nearly half and half; or say three-fifths coffee and two-fifths milk.”

### *Chocolate.*

Chocolate or cocoa is certainly very much preferable to either tea or coffee as an aliment or beverage. Cocoa possesses a rich bland oil, mild as the oil of sweet almonds. Its properties are nervine, aphrodisiac, saponaceous, cleansing and fattening. As an article of diet it is a highly nourishing restorative

in cases of emaciation and consumption, particularly when boiled with milk and eggs. It excites the appetite and helps digestion.

### *Cow's Milk.*

Milk is a connecting substance between animal and vegetable diet. By chemical analysis the properties of milk are found to vary as much as the different food upon which the animals feed. It is found however very difficult to ascertain by any chemical experiment the exact component parts of milk.—White and red clover, sweet vernal, sweet scented bent, and fescue grass, and red top, make the richest milk, the sweetest and the most wholesome butter. The buttercup and other pernicious weeds corrupt the milk. Cows that feed in buttercup fields produce unhealthy milk secretions, and the poisonous properties of such food are retained in the milk, and is rendered hurtful to all who partake of it. Good milk affords more health and strength than is generally supposed. It is very wholesome and nourishing used with bread, rice, sago, mealy potatoes, mush, samp, baked pumpkin, baked apples and pears. Clear milk or milk and water, is a very palatable drink in warm weather.

### *Goat's Milk.*

In consumption, ulceration of the stomach and bowels, in dropsies and diseases of children, nothing can surpass the sanative properties of the milk of

goats fed upon alterative and restorative plants. The dropsical and consumptive need scarcely any other food or medicine but what they may receive through the milk of goats fed in this way.

### *Wheat*

Ranks among the best of grains : it produces finer flour than that of any other description. It contains a larger portion of gluten, is well calculated for making bread, and adapted for the food of persons who have strong digestive powers ; but in the stomachs of invalids, or those of a costive habit of body, it runs into a hard pasty substance, and is apt to lodge in the lower bowels, in consequence of the quantity of gluten it contains, and is but too frequently obliged to be broken down by powerful doses of medicine before the bowels can be relieved. In such cases it is better to mix it with fine bran or the flour of some of the other grains, in order to make it more soluble in the stomach and intestines.

### *Barley*

Is a much sweeter grain than most of the others, its sugar being less covered by the oil ; hence it is the most common subject of fermentation ; and when made into beer, and but slightly hopped, as a beverage it is very naturally more nourishing than any other grain known.

Various experiments have been tried to discover

which is the most appropriate food for the reapers during the harvest, and the result has proved that none is equal to bread and well fermented sweet beer, taken three times a day, without any other food during the hay making and harvest seasons. With such diet the laborers can perform the most active and the hardest labor without diminishing their bodily strength. Barley water or gruel is excellent for cooling and allaying the heat of the blood in fevers, and will relieve patients afflicted with bloody urine, arising from the application of vesicatories by an unskilful hand. When made into pearl barley, it is superior for making soup to any other substance that I know, particularly as an article of food for children.

### *Rye*

Has also a particular sweet quality in its composition. It is hotter than wheat, and is therefore from these qualities considerably acescent, and soon liable to ferment in the stomach and produce purging, which most people experience when they first use it. When used as a poultice, it is more powerful in discussing tumours than any other grain. It is liable to be diseased by an insect depositing its animalcule in the grain, which causes it to sprout and produce an excrescence like a cock's spur, of a hard texture. When ground down with the flour, or used in distillation, it proves a mortal poison.

*Whey*

Differs, according as the milk may have been coagulated by rennet or by its own acescent properties. By the former, the coagulable part and a portion of oil going along with the whey, more purely separates them. When thus prepared, the whey contains much saccharine matter, is capable of promoting a vinous fermentation, and proves more purgative than milk, which gives out in the whey a great proportion of its ingredients. Whey as a beverage is excellent for invalids, and may be used in the form of gruel or porridge.

*Goat's Whey*

Is more nourishing than any other, and is a valuable medicine in many complaints, particularly consumption and atrophy; and where there are weak digestive powers, whey is a bland and easy assimilated nourishment, for it readily passes off by the secretions, and soon changes the state of the fluids. Porridge made of whey is the best food that can be given to strengthen weakly children.

*Buttermilk.*

Buttermilk the coagulable part and the whey are more entirely separated than the oily part. The co-

agulable part, which is broken down by the process of churning, makes it more digestible ; and as it contains much sugar, it is very nutritious, and being somewhat acescent, is more cooling to the system, and better suited to the inflammatory and alkalescent diathesis than milk. It is obvious it must be noxious, where refrigeration is hurtful.

One of the best methods of making butter, (of all that have been attempted in various countries, but more particularly in the vicinity of Edinburgh,) is that of churning the evening and morning milk together. The butter made in this way is much superior to that made of cream.

It is not only sweeter than the common milk, having the flavor of curdled milk, but is publicly sold in the streets of Edinburgh in the summer mornings, and is eagerly purchased and used by many of the rich, as a refrigerent drink, and by the poor to eat with their porridge or bread for breakfast. It is also a very healthy and cheap meal for children in the liquid form, as it strengthens the muscles more than any other substance, without inducing corpulency. From its general use among the poor in Ireland, who are chiefly brought up on it, and whose muscular strength is well known in the most arduous labor, where strength is required, shows the superior nature of the milk. Another physical property it possesses is in neutralizing acrid poisons, as has been proved in its application and effect upon the skin of

patients who are poisoned by the poison sumac: it is also useful for neutralizing the poison of solanum, and I have no doubt of its preventing, to a great extent, the noxious effects of bad potatoes in Ireland. The quality of buttermilk varies, according to the nature of the food that is eaten by the cattle.

### *Butter.*

This article is liable to various qualities during the summer months, and is of a very doubtful nature, often possessing very poisonous properties, owing to its being made from cattle that have been fed on food in which a great proportion of the buttercup, spurge, and other poisonous plants are found, producing in the stomachs of those who use it, the most acrid fermentation, inflammation of the viscera, severe bilious headache, diseased liver, indigestion, tic douloureux and other affections. At breakfast if much of such butter be used, in a very few hours, the headache, giddiness, or sick headache will come on.

### *Cheese.*

The next article I have to treat of is cheese, the coagulum of milk. To attempt to give a definition of the various qualities is not necessary. As an article of food, all persons with delicate stomachs ought to refrain from old and fiery cheese, and leave it to the robust. When prepared from sweet, rich



milk, and well made, it is very nutritious in small quantities; but indigestible when hard and ill prepared, especially to weak stomachs.

### *Rice.*

This is a grain that has long been the food of the greater part of the inhabitants of Asia, and is a favorite article in America. It has very little sweetness, no acidity: not fermentable, and is easily divided or rendered soft by boiling. It possesses some drying or astringent quality, and has therefore been employed in diarrhœa and dysentery.

### *Oats.*

Oatmeal is better adapted as food for a weak stomach, and children, than any other of the grains. Their health and bodily strength would be very much improved by the use of this grain. Oatmeal in its sound state, is entirely without bitterness, and should be preferred to arrowroot, sago, or any other meal, for the purpose of making gruel for the sick. I wish Mothers would, for the sake of their children, give it to them in porridge, every night and morning. Oatmeal compared with wheaten flour, is particularly adapted for such who are of a costive habit. Wheat contains of gluten 190, of mucilage or starch 765. Oats contain of gluten 87, of sugar 15, and of mucilage or starch 641.

### *Pernicious Food.*

The following articles of Aliment are very hurtful, and should never be eaten by those who value good health, or wish to preserve and enjoy it till old age.

Tough Meat, Corned Beef, Salt Meat, Smoked Fish, salt or fresh Pork, Fat Meat of any kind, Smoked Beef, Salt Fish, Lobsters, Crabs, Cucumbers, Mushrooms, Pickles. Avoid also much Spice or Pepper, and Ardent Spirits of every kind.

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### DAILY MEALS.

#### *Breakfast.*

This meal should consist of wholesome food, and be the most substantial meal of the day. A regard to the articles recommended in this work must be observed. The sick must look to the cookery for the sick, the invalids to his list, and the healthy to the list intended for them. All are required to partake in moderation and have their food plainly cooked.

#### *Dinner.*

This is the next important meal, and should be composed of wholesome, nourishing food, and less substantial than the morning meal, and should consist of but few dishes, judiciously chosen according to the rules laid down in this work.

#### *Tea or Supper.*

This should consist of very light articles. Good black tea, sugar, and milk, or milk and water, milk and bread, mush and milk; bread and good sweet butter; and eat with moderation.

## CHAPTER IV.



### *Plan of Diet and Regimen for Invalids.*

UNWHOLESOME food, impure water, and irregularities in diet, being the primary causes of most chronic diseases, it is necessary that patients afflicted with the above-mentioned disorders, should pay the strictest attention to their mode of living, not only during the process of cure, but even afterwards; as the same causes that produced a disease will occasion its return.

#### ARTICLES OF DIET RECOMMENDED.

##### *Farinaceous Vegetables.*

Bread made of coarse ground wheat, good sweet butter, mellow baked or roasted potatoes, wheat and rye flour; oat, barley, and peas meal; rice, arrow-root, sago, and tapioca, are recommended.

##### *Boiled Vegetables.*

Green peas, French and Windsor Beans, cabbage,

cauliflower, broccoli, Scotch kale, turnip, spinach, beet root, sea kale, asparagus, artichoke, Jerusalem artichoke, vegetable marrow, celery, dandelion, carrot, parsnip, leeks and onions, when thoroughly cooked; also pumpkins and squashes, in all their various modes of cooking, are recommended.

### *Raw Vegetables.*

Water cress, American cress, mustard and garden cress, lettuce, endive, nasturtium, radish, scurvy-grass, corn sallad and celery, are also recommended.

### *Fruit.*

Acidity in the stomach being one of the most prominent symptoms of derangement of the digestive organs, the patient must abstain from currants, gooseberries, grapes, plums, cherries, oranges, lemons, dried currants, raisins, and prunes; from vinegar, pickles, and acids of all kinds.

### *Animal Food.*

Milk, eggs, sweet butter, new cheese, the lean of mutton, beef, lamb, veal, fowls, turkeys, game, and fish, thoroughly cooked; and oysters.

### *Drink.*

Water being the natural diluent and solvent of the food, and constituting the chief part of the

fluids of the body, the purest and softest filtered rain or river water should be chosen, as being the most wholesome. But water containing putrescent animal and vegetable matter; hard pump or well water; chalybate springs, or water impregnated with iron; and water contaminated with the oxide of lead, in consequence of passing through leaden pipes and remaining in leaden cisterns,—is very deleterious; particularly in cases of scrofula and consumption,—and therefore to be avoided.

Cocoa, chocolate, sage tea, black tea, and toast-water are allowed. But since, in all cases of debility, a large quantity of fluid is injurious, the patient should drink as little as possible; and, in order to diminish the necessity of drinking, they should abstain from salt, as it excites thirst, fever and inflammation; and from wine, cider, perry, and malt liquors, as they entirely counteract the beneficial effects of the medicines.

### *Potatoes.*

This vegetable belongs to the same poisonous family that the deadly nightshade and henbane does. The potato is rendered perfectly wholesome by being grown on proper soil, and properly cooked. To be wholesome they should be cultivated on new and dry soil. The soil best calculated for raising good potatoes is new earth of marley, gravelly, chalky, slaty, and mountainous soil; but when grown

on rich manure or clayey soil, they are poisonous, indigestible, acid, acrid, flatulant, and are justly accused of producing typhus fever. When cooked for the table, they should be either baked, roasted, or steamed, but never boiled the usual way, unless in two waters. Their poisonous properties are dissipated in a great degree by steaming them, and are thus very much improved. The very best method of preparing the potato is first to macerate, then soak in water, until the water is tasteless; when dried sufficiently, and sifted, in order to separate the gluten from the starch, will be found perfectly wholesome, and better adapted for making pies, puddings, and pastry, than wheaten flour. Milk possesses a physical property of neutralizing the acrid and noxious effect of bad potatoes. Potatoes and cabbages should never be eaten at the same time, because they produce flatulency to a very painful degree, and produces an exceedingly corrosive acidity on the stomach.

*Brain and Stomach Sympathetically Acquainted.*

The digestive organs are almost the only *internal* organs which are daily and hourly exposed to the direct contact and agency of *external* matters. The introduction of atmospheric air into the lungs is the chief exception—if it be one. Now when we try to enumerate the variety of materials drawn from the animal and vegetable world for pampering the appetite of man—especially in highly civilized life—

we are lost and bewildered in the fruitless attempt. A single glance round the shelves of an Italian warehouse in Piccadilly or the Strand, must compel any one to admit that the powers of the stomach are—**PRODIGIOUS!** The pickles and preserves, the chillies and condiments, the Scandinavian tongues and Westphalian hams—but, above all, the sausages of Bologna and Germany, would alone poison the vulture, the shark, and the jackall. Or, if they did not kill direct these natural gourmands, they would, most assuredly, people the air, the ocean, and the wild woods with as exquisite **DYSPEPTICS**—perhaps, **HYPOCHONDRIACS**—as ever paced St. James street, or made the grand tour of Hyde Park, under the full influence of the **BLUE DEVILS**. It may be true, that the stomachs of our ancestors were stronger than the gizzard of an ostrich. But it is certain that we, their degenerate offspring, have no such powers of digestion. On the contrary, the vast majority of moderns, high and low, complain that they cannot digest even the plainest food, without great and daily torment! And how or why is this? Because the nerves of their digestive organs, participating in the general irritability, susceptibility, or sensibility of the whole nervous system, cannot bear the presence of food, which **MAN** and **ANIMALS**, in a state of nature and strong health, can turn with ease into the blandest nutriment.

It is well known to every physiologist that the great internal organs, the heart, liver, stomach, &c.



perform their vital functions independent of the will, being supplied by the ganglionic nerves, a class entirely distinct from those emanating from the brain and spine, which are under the guidance of the mind. These ganglionic organs not only refuse to tell us *how* they perform their operations in their hidden laboratories, but *when* they are at work. Thus in a state of health, we have no conscious sensations from the vital functions of the circulation, respiration, digestion, assimilation, secretion, &c. The heart feels the presence of the blood, but keeps that feeling to itself. The lungs feel the influence of atmospheric air, but give, the mind no intimation of such feeling. The stomach is alive to the presence of food, and performs the important task of digestion, but troubles not the intellect with any intimation of its proceedings. And so of all the other internal organs. This is a wise provision of nature, or rather of nature's God. But intercourse between the two systems of nerves, the nerves of sense and the nerves of the internal organs, is not absolutely prohibited. They mutually correspond in a state of health, without our consciousness, and, still more, without pain or inconvenience. But let us overeducate, as it were; that is, let us pamper the digestive organs, for example, by unnatural stimulation; or, let these said organs be long and strongly associated, in sympathy, with excitement of the intellect, and its organ, the brain—and what is the consequence? The stomach becomes, as it were, *intellectualized*—

that is, denaturalized ; so that its sensibility rises from the organic or *unconscious* to the animal or *conscious* state of feeling ! Then it is that the process of digestion not only becomes cognizable to our senses, but exceedingly painful.

When the stomach has thus acquired an additional sense—a sense properly appertaining to a superior organ, the organ of the mind—the owner of that stomach has incurred a penalty, which will require months or years for exoneration. He has over-educated an organ which would have performed its function much better in its pristine ignorance. It is like the cook who studies transcendental chemistry, and spoils the soup—or the tailors of Laputa, who cut their coats on philosophical principles, and never made them to fit any of their customers. The stomach has tasted the fruit of the tree of knowledge, presented by the brain—and both parties are turned out of the Garden of Eden, to suffer for their transgressions during the remainder of their lives ! Whether or not mutual recriminations took place between the first participators in guilt, I will not pretend to say. Such recriminations are the natural consequences of sin in our present state of existence. But be that as it may, I can answer for this fact, that the stomach repays with usurious interest the injuries and sufferings which it has received from its contemporary and copartner—the brain.

It is more curious than consolatory to scrutinize, with philosophic eye, the workings of turtle, cham-

pagne, and conviviality, on those finer faculties with which metaphysicians have invested the immortal principle of MAN. Without diving into these mysterious and perhaps dangerous investigations, I shall only remark that *every* faculty of the mind, as well as every function of the body, comes under the influence of the above-mentioned material agents, and in a manner that is well worthy of investigation, in regard to the immediate subjects of this essay.

[*Dr. Johnson on Health.*]

#### *Air and Exercise.*

To promote the cure, it is indispensably necessary that patients, and particularly those afflicted with scrofula, who are frequently averse to active exertion, should rise early and take as much exercise in the open air as can be borne without pain or excessive fatigue.

## CHAPTER V.



### *Cookery for the Sick.*

THE following pages contain cookery for the sick ; it being of more consequence to support those whose bad appetite will not allow them to take the necessary nourishment, than to stimulate that of persons in health.

It may not be unnecessary to advise that a choice be made of the things most likely to agree with the patient ; that a change be provided ; that some one at least be always ready ; that not too much of those be made at once which are not likely to keep, as invalids require variety ; and that they should succeed each other in different forms and flavors.

When articles are not wanted for immediate use, they may be kept in a state of perfect preservation by putting them, when boiling hot, into stone jars, and corking them tight with the best corks, and a piece of bladder over them, to exclude the action of the air : the jars should hold the quantity that may be required for present use ; say, from a pint to three gallons.

It must be observed, that when the patient's pulse is above eighty, no wine should be added to the mixtures ; and if any thing be required, a little brandy, to slightly flavor them, will answer every purpose. When the pulse is low, wine is very proper, in the quantities recommended. No vinegar to be employed, as lemon or lime juice is preferable.

*A clear Broth that will keep long.*

Put the mouse round of beef, a knuckle-bone of veal, and a few shanks of mutton into a deep pan, and cover close with a dish or coarse crust : bake till the beef is done enough for eating, with only as much water as will cover. When to be used, give what flavor may be approved.

*A quick made Broth.*

Take a bone or two of a neck or loin of mutton, take off the fat and skin, set it on the fire in a small tin saucepan that has a cover, with three-quarters of a pint of water, the meat being first beaten and cut in thin bits ; put a bit of thyme and parsley, and if approved, a slice of onion. Let it boil very quick, skim it nicely ; take off the cover if likely to be too weak, else cover it. Half an hour is sufficient for the whole process.

*A very Supporting Broth against any kind of Weakness.*

Boil two pounds of loin of mutton, with a very large handful of sweet herbs, in two quarts of water, to be boiled to one; take off part of the fat. Any roots may be added. Take half a pint three or four times a day.

*A very nourishing Veal Broth.*

Put the knuckle of a leg or shoulder of veal, with very little meat to it, an old fowl, and four shank-bones of mutton extremely well soaked and bruised, three blades of mace, ten peppercorns, an onion, a large bit of bread, and three quarts of water, into a stewpot that covers close, and simmer in the slowest manner after it has boiled up and been skimmed; or bake it; strain and take off the fat; salt as wanted. It will require four hours.

*Broth of Beef, Mutton and Veal.*

Put two pounds of lean beef, one pound of scrag of veal, one pound of scrag of mutton, three ounces of pearl barley, sweet herbs and ten peppercorns, into a nice tin saucepan, with seven quarts of water; to simmer to three of four quarts, and clear from the fat when cold. Add an onion if approved, or the white part of leeks.—Soup and broth, made of differ-

ent meats, are more supporting, as well as better flavored. To remove the fat, take it off when cold as clean as possible; and if there be still any remaining, lay a bit of clean blotting or cap paper on the broth when in the basin, and it will take up every particle.

### *Calves' Feet Broth.*

Boil two feet in three quarts of water to half; strain and set it by; when to be used, take off the fat, put a large teacup full of the jelly into a saucepan with half a glass of sweet wine, a little sugar and nutmeg, and heat it till it be ready to boil, then take a little of it and beat by degrees to the yolk of an egg, and adding a bit of butter the size of a nutmeg, stir it all together, but don't let it boil: grate a bit of fresh lemon-peel into it.

*Another.*—Boil two calf's feet, two ounces of veal and two of beef, the bottom of a small loaf, two or three blades of mace, half a nutmeg sliced, and a little salt, in three quarts of water to three pints; strain, and take off the fat.

### *Chicken Broth.*

Put the body and legs of the fowl, after taking off the skin and rump, into the water it was boiled in, with one blade of mace, one slice of onion, and ten white peppercorns. Simmer till the broth be of a pleasant flavor: if not water enough, add a little. Beat a quarter of an ounce of sweet almonds with a



teaspoon full of water fine, boil it in the broth; strain; and when cool, remove the fat.

*Another.*—Dress a fowl; wash it in boiling water with a portion of salt; take eight quarts of water, and four or six ounces of pearl-barley; boil it an hour and a half; put in the fowl and boil it, with the addition of the white of leeks and parsley. When the fowl is sufficiently done, add a pint of sweet milk; let it just come to the boiling point; take the soup off the fire; have the fowl covered with a small quantity of good butter and parsley, with a few pieces of lemon-peel: a little pepper and salt or aromatics may be added.

### *Eel Broth.*

Clean half a pound of small eels, and set them on with three pints of water, some parsley, one slice of onion, a few peppercorns; let them simmer till the eels are broken, and the broth good; add salt and strain it off. The above should make three half-pints of broth.

### *Beef Tea.*

Cut a pound of fleshy beef in thin slices; simmer with a quart of water twenty minutes, after it has once boiled and been skimmed; season, if approved, with a small portion of salt.

### *Shank Jelly.*

Soak twelve shanks of mutton four hours, then

brush and scour them very clean; lay them in a saucepan with three blades of mace, an onion, twenty Jamaica and thirty or forty black peppers, a bunch of sweet herbs, and a crust of bread made very brown by toasting. Pour three quarts of water to them, and set them on a hot hearth, close covered; let them simmer as gently as possible for five hours, then strain it off, and put it in a cold place.

This may have the addition of a pound of beef, if approved, for flavor. It is a remarkable good thing for people who are weak.

#### *Arrowroot Jelly.*

If genuine, is very nourishing, especially for weak bowels. Put into a saucepan half a pint of water, a glass of sherry, or a spoonful of brandy, grated nutmeg and fine sugar; boil once up, then mix it by degrees into a desert spoonful of arrowroot, previously rubbed smooth with two spoons full of cold water; then return the whole into the saucepan; stir and boil it three minutes.

#### *Tapioca Jelly.*

Choose the large sort, pour cold water on to wash it two or three times, then soak it in fresh water five or six hours, and simmer it in the same, until it becomes quite clear; then put lemon juice, wine and sugar. The peel should have been boiled in it. It thickens very much.

*An Excellent Jelly.*

Take rice, sago, pearl barley, hartshorn shavings, each an ounce ; simmer them with three pints of water to one, and strain it. When cold it will be a jelly, of which give, dissolved in wine, milk, or broth, in change with other nourishment.

*Panada made in Five Minutes.*

Set a little water on the fire with a glass of white wine, some sugar, and a scrape of nutmeg and lemon peel ; meanwhile grate some crumbs of bread. The moment the mixture boils up, keeping still on the fire, put the crumbs in and let it boil as fast as it can. When at a proper thickness just to drink, take it off.

*Another.*—Make as above, but instead of a glass of wine put in a teaspoon full of rum, and a bit of butter ; sugar as above. This is a very pleasant food.

*Another.*—Put to the water a bit of lemon peel, mix the crumbs in, and when nearly boiled enough, put some lemon or orange syrup. Observe to boil all the ingredients, for if any be added after, the panada will break and not jelly.

*Chicken Panada.*

Boil it till about three parts ready in a quart of water, take off the skin, cut the white meat off when

cold, and put into a marble mortar; pound it to a paste with a little of the water it was boiled in, season with a little salt, a grate of nutmeg, and the least bit of lemon peel. Boil gently for a few minutes to the consistency you like; it should be such as you can drink, though tolerably thick. This conveys great nourishment in a small compass.

*Sippets, when the Stomach will not receive Meat.*

On an extreme hot plate put two or three sippets of bread, and pour over them some gravy from beef, mutton or veal, if there be no butter in the dish. Sprinkle a little salt over.

*Eggs.*

An egg broken into a cup of tea, or beaten and mixed with a basin of milk, makes a breakfast more supporting than tea solely.

An egg divided, and the yolk and white beaten separately, then mixed with a glass of wine, will afford two very wholesome draughts, and prove lighter than when taken together.

Eggs very little boiled or poached, taken in small quantities, convey much nourishment: the yolk only, when dressed, should be eaten by invalids.

*A Great Restorative.*

Bake two calf's feet in two pints of water, and

the same quantity of new milk, in a jar close covered three hours and a half. When cold remove the fat.

Give a large teacup full the last and first thing. Whatever flavor is approved, give it by baking in it lemon peel, cinnamon or mace. Add sugar afterwards.

*Another.*—Simmer six sheep's trotters, two blades of mace, a little cinnamon, lemon peel, a few hartshorn shavings, and a little isinglass, in two quarts of water to one: when cold take off the fat, and give near half a pint twice a day, warming it with a little new milk.

*Another.*—Boil one ounce of isinglass shavings, forty Jamaica peppers, and a bit of brown crust of bread, in a quart of water to a pint, and strain it. This makes a pleasant jelly to keep in the house, of which a large spoonful may be taken in wine and water, milk, tea, soup, or any way.

*Another, a very pleasant draught.*—Boil a quarter of an ounce of isinglass shavings, with a pint of new milk to half; add a bit of sugar, and for change a bitter almond.

Give this at bedtime, not too warm.

### *Caudle.*

Make a fine smooth gruel; strain it when boiled well; stir it at times till cold. When to be used, add sugar, wine and lemon peel, with nutmeg. Some

persons like a spoonful of brandy besides the wine, others like lemon juice.

*Another.*—Boil up half a pint of fine gruel, with a bit of butter the size of a large nutmeg, a large spoonful of brandy, the same of white wine, a bit of sugar, a bit of lemon peel and nutmeg.

*Another.*—In a pint of fine gruel, not thick, put while it is boiling hot, the yolk of an egg beaten with sugar, and mixed with a large spoonful of cold water, a glass of wine and nutmeg. Mix by degrees. It is very agreeable and nourishing. Some like gruel with a glass of table beer, sugar, &c., with or without a teaspoon full of brandy.

### *Cold Caudle.*

Boil a quart of spring water; when cold add the yolk of an egg, the juice of a small lemon, six spoons full of sweet wine, sugar to your taste, and syrup of lemon one ounce.

### *A Flour Caudle.*

Into five spoons full of the purest water, rub smooth one dessert spoonful of fine flour. Set over the fire five table spoons full of new milk, and put two bits of sugar into it: the moment it boils pour into it the flour and water, and stir it over a slow fire twenty minutes. It is a nourishing and gentle astringent food, particularly for babies who have weak bowels.

*Rice Caudle.*

When the water boils pour into it some grated rice, mixed with some water; when of a proper consistence, add sugar, lemon peel, and cinnamon, and a glass of brandy to a quart. Boil it all smooth.

*Another.*—Soak some rice in water an hour; strain it, and put two spoons full of rice into a pint and a quarter of milk; simmer till it will pulp through a sieve, then put the pulp and milk into a saucepan with a bruised clove and a bit of white sugar: simmer ten minutes: if too thick, add a spoonful or two of milk, and serve with thin toast.

*To Mull Wine.*

Boil some spice in a little water till the flavor is gained, then add an equal quantity of Port, Madeira, or Sherry, some sugar and nutmeg: boil together, and serve with toast.

*Another.*—Boil a bit of cinnamon and some grated nutmeg a few minutes in a large teacup full of water; then pour to it a pint of wine, and add sugar to your taste: beat it up and it will be ready: or, it may be made of good home-made wine. •

*To make Coffee.*

Put two ounces of fresh ground coffee, of the best quality, into a coffee-pot, and pour eight coffee-cups



of boiling water on it; let it boil six minutes; pour out a cup full two or three times and return it again; then put two or three isinglass chips into it, and pour one large spoonful of boiling water into it; boil it five minutes more, and set the pot by the fire to keep hot for ten minutes, and you will have coffee of a beautiful clearness. Fine cream should always be served with coffee, and either pounded sugar-candy or fine sugar. If for foreigners, or those who like it very strong, make only eight dishes from three ounces. If not fresh roasted, lay it before a fire until perfectly hot and dry: or you may put a small bit of fresh butter into a preserving pan of a small size, and when hot, throw the coffee into it, letting it be cold before ground.

*Another.*—Take four ounces of fresh ground coffee, put it into a bowl; beat up an egg with the shell and a spoonful of cold water, which mix well with the coffee; put the whole into a coffee-pot; pour two quarts of boiling water upon it; let it simmer by the fire for ten minutes; be careful it does not boil over; pour out a cup full and return it thrice; and after it has stood two or three minutes, pour it into another pot until the sediment appear, and send it to table. If the coffee is wanted stronger, add six ounces. When milk is used instead of cream, it should be heated near the boiling point, but not boil. If the coffee be properly roasted, this way will be much approved of.

*To Roast Coffee*—Take of butter the size of a wal-

nut, and a tea spoonful of sugar, which add to the coffee, taking care it is not overdone: what is not wanted for immediate use should be put in an air-tight vessel, kept in a dry place, and ground as it is wanted.

### *Coffee-Milk.*

Boil a dessert spoonful of ground coffee, in nearly a pint of milk, a quarter of an hour; then put into it a shaving or two of isinglass, and clear it; let it boil a few minutes, and set it by the side of the fire to clarify. This is very fine for breakfast: it should be sweetened with sugar of a good quality.

### *Chocolate.*

Those who use much of this article, will find the following mode of preparing it both useful and economical:—Cut a cake of chocolate in very small bits; put a pint of water into the pot, and when it boils, put in the above; pour it into a basin, and it will keep in a cool place eight or ten days or more. When wanted, put a spoonful or two into milk; boil it with sugar, and mill it well. This is a very good breakfast or supper.

Cocoa is a light wholesome breakfast.

### *Milk Porridge.*

Make a fine gruel of cracked corn, grits, or oat-

meal, long boiled ; strain off ; either add cold or warm milk, as may be approved. Serve with toast.

### *French Milk Porridge.*

Stir some oatmeal and water together, let it stand to clear, and pour off the latter ; pour more water upon it ; stir it well ; let it stand till next day ; strain through a fine sieve, and boil the water, adding milk while doing ; the proportion of water must be small. This is much ordered, with toast, for the breakfast of weak persons abroad.

### *Ground Rice Milk.*

Boil one spoonful of ground rice, rubbed down smooth, with three half pints of milk, a bit of cinnamon, lemon peel and nutmeg ; sweeten when nearly done.

### *Sago.*

To prevent the earthy taste, soak in cold water an hour ; pour that off and wash it well ; then add more and simmer gently till clear ; flavor with lemon peel and spice if approved : add wine and sugar, and boil all up together.

### *Sago Milk.*

Cleanse as above, and boil it slowly, and wholly with new milk. It swells so much, that a small quantity will be sufficient for a quart ; and when

done it will be diminished to about a pint. It requires no sugar or flavoring.

### *Asses' Milk:*

Far surpasses any imitation of it that can be made: it should be milked into a glass that is kept warm by being in a basin of hot water. The fixed air that it contains gives some people a pain in the stomach. At first a teaspoon full of rum may be taken with it, but should only be put in the moment it is to be swallowed.

### *Artificial Asses' Milk.*

Boil together a quart of water, a quart of new milk, an ounce of white sugar candy, half an ounce of eringo root, and half an ounce of conserve of roses, till half be wasted. This is astrigent, therefore proportion the dose to the effect, and the quantity to what will be used while sweet.

*Another.*—Mix two spoons full of boiling water, two of milk, and an egg well beaten; sweetened with pounded white sugar candy. This may be taken twice or thrice a day.

*Another.*—Boil two ounces of hartshorn shavings, two ounces of pearl barley, two ounces of candied eringo root, in two quarts of water to one: mix with an equal quantity of new milk; take twice a day.

*Water Gruel.*

Put a large spoonful of oatmeal or fine Indian meal, by degrees, into a pint of water, and when smooth, boil it.

*Another.*—Rub smooth a large spoonful of oat or fine Indian meal, with two of water, and pour it into a pint, boiling on the fire; stir it well and boil it quick, but take care it does not boil over: in a quarter of an hour strain it off, and add salt and a bit of butter when eaten: stir until the butter be incorporated.

*Barley Gruel.*

Wash four ounces of pearl barley; boil it in two quarts of water and a stick of cinnamon till reduced to a quart; strain, and return it into the saucepan with sugar, and three quarters of a pint of port wine; beat up, and use as wanted.

*A very agreeable Drink.*

Into a tumbler of fresh cold water pour a table spoonful of capillaire, and the same of good lemon syrup.

Tamarinds, fresh, or in a jelly, or scalded cranberries, make excellent drinks, with or without a little sugar, as agreeable.

*A refreshing Drink in a Fever.*

Put a little tea sage, two sprigs of balm, and a lit-

the sorrel, into a stone jug, having first washed and dried them; peel thin a small lemon, and clear from the white; slice it, and put a bit of the peel in; then pour in three pints of boiling water; sweeten, and cover it close.

*Another.*—Wash extremely well an ounce of pearl barley; shift it twice; then put to it three pints of water, an ounce of sweet almond beaten fine, and a bit of lemon peel; boil till you have a smooth liquor; then put in a little syrup of lemon and capillaire.

*Another.*—Boil three pints of water with an ounce and a half of tamarinds, three ounces of cranberries and two ounces of stoned raisins, till near a third consumed: strain on a bit of lemon peel, which remove in an hour, as it gives a bitter taste if left long.

*A very Pleasant Drink.*

Put a teacup full of cranberries into a cup of water, and mash them. In the meantime boil two quarts of water with one large spoonful of corn or oat meal and a bit of lemon peel; then add the cranberries; as much fine sugar as shall leave a smart flavor of the fruit, and a quarter of a pint of sherry, or less, as may be proper: boil all for half an hour and strain off.

*Soft and fine Draught for those who are Weak and have a Cough.*

Beat a fresh laid egg and mix it with a quarter of

a pint of new milk warmed, a large spoonful of capillaire or vinegar, the same of rose water, and a little nutmeg scraped. Don't warm it after the egg is put in. Take it the first and last thing.

### *Toast and Water.*

Toast slowly a thin piece of bread till extremely brown and hard, but not the least black ; then plunge it into a jug of cold water and cover it over an hour before used. This is very serviceable in weak bowels. It should be of a fine brown color before drinking it. Or, when the bread is ready, pour boiling water over it and let it stand until cool.

### *Barley Water.*

Wash a handful of common barley, then simmer it gently in three pints of water, with a bit of lemon peel.

*Another.*—Boil an ounce of pearl barley a few minutes to cleanse, then put on it a quart of water ; simmer an hour : when half done, put into it a bit of fresh lemon peel and one bit of sugar. If likely to be too thick, you may put another quarter of a pint of water. Lemon juice may be added if approved.

### *Lemon Water, an excellent Drink.*

Put two slices of lemon thinly pared into a teapot,



a little bit of the peel, and a bit of sugar; pour in a pint of boiling water, and cover it close two hours.

### *Apple Water.*

Cut two large apples in slices, and pour a quart of boiling water on them; or roasted apples; strain in two or three hours, and sweeten lightly.

### *Whey.*

That of cheese is a very wholesome drink, especially when the cows are in fresh herbage: it makes a good nourishing gruel.

### *White Wine Whey.*

Put half a pint of new milk on the fire; the moment it boils up pour in as much sound raisin wine as will completely turn it, and it looks clear; let it boil up; then set the saucepan aside till the curd subsides, and do not stir it. Pour the whey off, and add to it half a pint of boiling water, and a bit of white sugar. Thus you will have a whey perfectly cleared of milky particles, and as weak as you choose to make.

### *Lemon Whey.*

Pour into boiling milk as much lemon juice as will make a small quantity quite clear; dilute with hot water to an agreeable smart acid, and put a bit or two of sugar. This is less heating than if made of

wine; and if only to excite perspiration, answers as well.

*Buttermilk, with Bread or without.*

It is most wholesome when sour, as being less likely to be heavy; but most agreeable when made of sweet cream.

*Sweet Buttermilk.*

Take the milk from the cow into a small churn; in about ten minutes begin churning, and continue till the flakes of butter swim about pretty thick, and the milk is discharged of all the greasy particles, and appears thin and blue: strain it through a sieve, and drink it as frequently as possible. It should form the whole of the patient's drink, and the food should be biscuits and coarse hard bread; ripe and dried fruits of various kinds, when a decline is apprehended; raisins in particular (of all baked or dried fruits) make excellent suppers for invalids, with biscuits or common cakes.

*Orgeat.*

Beat two ounces of almonds with a teaspoon full of orange flower water and a bit of almond or two; then pour a quart of milk and water to the paste; sweeten with sugar or capillaire. This is a fine drink for those who are tender in the chest; and in the gout it is highly useful; and, with the addition of half an ounce of gum-arabic, has been found to

allay the painfulness of the attendant heat. Half a glass of brandy may be added if thought too cooling in the latter complaints, and the glass of orgeat may be put into a basin of warm water.

Squeeze the juice ; pour boiling water on a little of the peel, and cover close : boil water and sugar to a thin syrup, and skim it. When all are cold, mix the juice, the infusion, and the syrup, with as much more water as will make a rich sherbet ; strain through a jelly-bag. Or, squeeze the juice, and strain it, and add water and capillaire.

### *Egg Wine.*

Beat an egg ; mix with it a spoonful of cold water ; set on the fire a glass of white wine, half a glass of water, sugar and nutmeg. When it boils pour a little of it to the egg by degrees, till the whole be in, stirring well : then return the whole into the saucepan ; put it on a gentle fire ; stir it one way for not more than a minute ; for if it boil, or the egg be stale, it will curdle. Serve with toast.

Egg wine may be made as above, without warming the egg, and it is then lighter on the stomach, though not so pleasant to the taste.

## CHAPTER VI.

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### *Observations on the Use of Whitlaw's Medicated Vapor Bath, as an agent in the cure of disease.*

Copy of a Letter extracted from the Gazette of Health, on Mr. Whitlaw's Patent Medicated Vapor Bath, October, 1st, 1826, addressed to the Editors.

*New York, August 1st, 1826.*

SIR.—Having been in the habit of reading your useful work, and observing its increasing circulation, both at home and abroad, I have thought proper to address to you a few lines respecting the use and virtues of the medicated vapor bath, introduced and patented in this country, about two years ago, by Mr. Charles Whitlaw.

This simple, though very important invention, is beginning to attract observation and awaken inquiry among many of the most liberal and well informed physicians in this country, and will, ere long, be in very general use. I have superintended the estab-

lishment, formed in this city for the purpose of testing its usefulness and trying its effects, as a means in alleviating and curing disease, and have seen administered for that purpose about six thousand baths. From the result of this experience and attentive observation, it will not, I hope, be considered presumptuous in me to say that I can speak with much confidence respecting its utility as a remedy in numerous complaints. If it be considered only as a simple warm vegetable vapor bath, its superiority over the warm water baths is not to be calculated. The vapor bath possesses the power of producing diaphoresis, or profuse perspiration, in *any state of the body*, at will; therefore its effects must be salutary, efficacious, and powerful. The proximate cause of morbid or diseased action, by the most eminent physicians, is attributed to a deranged state of the exhalent arteries of the skin or follicles immediately under it; and when this insensible exhalation is not present, disease must, to a greater or less degree, supervene. Indeed, perfect health cannot long continue without it; while a contrary condition, such as heat, dryness of skin, ardent thirst, &c. &c. is at all times more or less present in disease. It cannot, in fact, be otherwise; for the substances thrown off by perspiration are positively deleterious, being partly composed of carbonic and nitrogen gases; hence the numerous contrivances and means adopted in all ages and in all countries to promote this absolutely necessary and healthy action of the extreme vessels

of the surface. If the bath be considered only as a simple vegetable vapor, or rather effluvia, possessing these powers at will, its obvious utility as a remedy cannot for a moment be doubted. If it be considered as a *medicated* vapor bath, it may be observed that the practice of inhaling the fumes, effluvia, vapor, &c. of different substances, such as the fumes of tar, &c. for diseases of the lungs, smoking stramonium and other narcotics in asthmatic affections, cinnabar, &c. in ulcerated sore throats, &c. &c., but never to the same extent, or in so effectual a manner, until this simple, efficient, and happy invention, by Mr. Charles Whitlaw. When the body is laboring under disease, the restoration of that salutary discharge called diaphoresis, or perspiration, has long been the *desideratum* of the profession, and is in all cases the first symptom which indicates an approach towards a recovery ; and where that cannot be accomplished, morbid action must be present, and disease continue. “A crisis,” says a learned author, “is the actual discharge of morbid matter, whether by the bowels or skin, brought on by the powers of nature, or the aid of medicine.” Here then, I say, is the desideratum at once ; for, in any state of the body, this actual discharge can be brought on at will, and consequently a crisis formed in any stage of the disease. It would be a useless occupation of time and space to notice here all the particular effects produced on different habits, and complaints, by the administration of about six thousand baths for the

relief and cure of different diseases; but I feel myself called on by candor and truth to state, that I have never found its equal, as an aid to the means in our power, for the relief of suffering humanity; and when placed in the hands of those who will not abuse its merits, its advantages are not to be calculated. Its manifest and immediate effects are, an agreeable and pleasant cleansing or purification of the whole body, producing an equal and general stimulation of the functions of the skin, and promoting animation, liveliness, and desire of food. It immediately relieves retropulsed eruptions, constriction, congestion, spasm, asthma, cholera, ardent fever, ardent and unquenchable thirst, dry and hot skin, &c. &c.

In cold listless habits of body, attended with a depravity of the functions of secretions, particularly those of the skin, the bath has never failed to produce the most beneficial effects; many having attended who have not experienced the pleasure of a natural perspiration, or a soft moist skin for several years previous to their taking the bath. Its happy effects in green sickness, phlegmatic and debilitated habits, have been manifested in numerous cases, far beyond expectation. At the commencement of the cold stage, or at the accession of the febrile paroxysm, its effects are happy and instantaneous, and in most cases (if care be taken) a cure will at once be effected. In fact, its usefulness as a remedy in the practice of medicine is not to be calculated; and the field



which is opened by this simple and invaluable invention, to the inquisitive and philosophical members of the profession, is immense.

I am, Sirs, your constant reader and friend,

W. M. IRELAND, M. D.

*To the Editors of the Gazette of Health.*

*Letter of William Ireland, M. D. to Mr. Charles  
Whitlaw.*

*New York, September, 30, 1826.*

MY DEAR SIR,—I received yours of the third of the last month, and am happy to hear that you and Mrs. Whitlaw are in health. Notwithstanding the illiberal opposition you have to contend with, the great merit of your invaluable discoveries will carry you through. You will no doubt be anxious to learn how we are coming on here.

Out of the number of cases submitted to the bath, it is but justice to state, that in acute and chronic inflammation, more benefit has been derived from the use of the medicated vapor bath in twenty-four hours, than I have ever witnessed in a month's most successful practice.

The following is a list of the disorders included in the above cases: Obstinate visceral obstruction; acute and chronic affections of the liver; scorbutic diseases of the skin; scabies and old inveterate cutaneous disease; scald head, salt-rheums, ring-

worms, &c. &c. ; jaundice, lumbago, sciatica ; acute and chronic rheumatisms ; asthmatic diseases, spitting of blood ; palpitations of the heart, attended with weak small intermitting pulse ; obstinate diarrhœa ; erysipelatous inflammations, ophthalmia ; obstinate glandular and scrofulous diseases ; obstruction of urine and menses ; strangury, spasmodic strictures, &c. &c. ; syphilitic sore throat, eruptions of the skin ; nodes, ulcers, &c. ; tic douloureux, and nervous irritability.

Dr. Lawrance in his letter to me, mentions among his cases, obstinate obstructions of the uterus, obstinate and long standing rheumatism, deafness, hydrothorax, hydrops, pericardia, anasarca, erysipelas, chlorosis, sciatica, wounded nerve, &c. Dr. Ingalls of Boston, mentions that the beneficial effects of the bath far exceed his most sanguine expectations. He has treated with great success cases of diseased prostrate glands, indurated and scirrhus tumours, a variety of scrofulous cases of an obstinate and formidable nature, hemaptysis, rheumatism complicated with syphilis, cutaneous diseases of the most obstinate nature, &c. &c. Dr. Holbrook has been equally successful in its application to diseases peculiar to hot climates ; such as bilious cholics, bilious fevers, jaundice, dysentery, cholera morbus, intermittents, &c. &c. Indeed, he has enumerated fifty different species of diseases which were brought under the list of the vapor bath at the dispensary the

first year; and out of six hundred and eighty-one patients, four hundred and sixty-eight were cured, one hundred and eighty-six relieved.

The diseases on which the medicated vapor bath has been administered during the last year are as follows:—

|                              |     |                                 |   |
|------------------------------|-----|---------------------------------|---|
| Influenza and Cold . . . . . | 211 | Dyspepsy, or Indiges-           |   |
| Rheumatism . . . . .         | 156 | tion . . . . .                  | 4 |
| Cutaneous diseases . . . . . | 55  | Organic Affections of           |   |
| Pulmonic ditto . . . . .     | 43  | the Heart . . . . .             | 1 |
| Dropsies . . . . .           | 19  | Syphilis . . . . .              | 4 |
| Diseased Liver . . . . .     | 15  | Hæmorrhoids . . . . .           | 4 |
| Asthma . . . . .             | 13  | Giddiness, or Vertigo . . . . . | 3 |
| Debility . . . . .           | 13  | Bilious Cholic . . . . .        | 3 |
| Scrofula . . . . .           | 13  | Inflam. of the Eyes . . . . .   | 3 |
| Fever and Ague . . . . .     | 12  | Scurvy . . . . .                | 3 |
| Sore Throat . . . . .        | 11  | Chronic Diarrhœa . . . . .      | 3 |
| Bilious Fever . . . . .      | 9   | Burns and Scalds . . . . .      | 2 |
| Suppressio Mensium . . . . . | 8   | Pimpled Face . . . . .          | 2 |
| Stricture of the Ure-        |     | Pain in the Stomach . . . . .   | 2 |
| thra . . . . .               | 2   | Dysentery . . . . .             | 2 |
| Gout . . . . .               | 7   | Cholera Morbus . . . . .        | 2 |
| Old Ulcers . . . . .         | 7   | Fits . . . . .                  | 2 |
| Swelled Face . . . . .       | 7   | Hysterics . . . . .             | 2 |
| Toothache . . . . .          | 7   | Stiff Neck . . . . .            | 2 |
| Leucorrhœa . . . . .         | 6   | Sore Lips . . . . .             | 2 |
| Inflammation, Tumors         |     | Sciatica . . . . .              | 2 |
| and Biles . . . . .          | 6   | Diseased Spine . . . . .        | 2 |

|                        |   |                     |   |
|------------------------|---|---------------------|---|
| Palsy . . . . .        | 6 | Earache . . . . .   | 2 |
| Country Fever . . .    | 5 | Gravel . . . . .    | 1 |
| St. Vitus' Dance . .   | 5 | Nettle Rash . . . . | 1 |
| St. Anthony's Fire . . | 5 | Pleurisy . . . . .  | 1 |
| Spitting of Blood . .  | 4 | Jaundice . . . . .  | 1 |

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Total of Fifty Diseases. . . . . 681

### *Recapitulation.*

Cured 468—Relieved 186—No relief 27—Total 681.

With these and numerous other incontestible facts before us, who can dare to say, that the medicated vapor bath is not one of the greatest blessings that ever was invented for the relief and cure of suffering humanity? I am myself so fully satisfied of its very extraordinary and powerful effects as an aid to general practice, that I would not be without it for all that I have hitherto known of my profession. It may for a time, like all other valuable inventions, meet with opposition from the illiberal and uninformed; but truisms and facts will certainly, though slowly, make their way; and the time will come when the profession can do no more without the aid of the vapor bath, than it can without the aid of the lancet. Had I been acquainted with the vapor bath while many years surgeon to the British army in the West Indies, how many thousand victims could I have saved from the unrelenting jaws of death; and how would my mingled feelings of sorrow and regret have been

changed to satisfaction and pleasure. I cannot conclude without enumerating a few extraordinary cases which have come under my care since I last addressed you :

*Case 1.*

About six weeks ago I was called to a patient who had been given up by his attending physician ; this patient, a young man about twenty years of age, had been ill about ten days with a severe paralytic affection on one side ; on visiting him, he had lost all sense of motion, sight, speech, &c., and was then laboring under spasmodic twitchings of the muscles on one side, resembling the symptoms of the last stage of hydrocephalus. Tongue dry and brown ; skin hot and dry ; pulse quick and small ; evacuations involuntary ; and deglutition difficult : in fact, he appeared to be *iter ad mortem*. In this state I advised the bath ; he was placed in it, and supported by a servant, and the vapor rose to one hundred and six ; when perspiration began to flow, his spasms ceased, spirits returned, and he drank off a tumbler of warm wine and water without much difficulty. He remained twenty-five minutes in the bath, and then was able to walk to his bed with the help of one person. The pulse rose and was less frequent ; the spasms did not return ; the perspiration continued to flow ; he took more tepid drink, and fell into a sound and quiet sleep, which lasted several hours : he awoke and asked for more drink ; continued to

perspire profusely for twelve hours; had the bath every day, together with other medical treatment; and in two weeks was able to walk about; he is now quite recovered, and attending to his occupation. What an immense field of investigation does this open to us! Spasms and convulsive twitchings,—muscular contractions and constrictions,—restrained perspiration and obstructed secretions,—are all removed, when brought under this simple, though all-powerful agent, the medicated vapor bath. I have a great deal more to say, but must conclude: we are all well, and hope this will find you the same.

WILLIAM IRELAND, M. D.

*To Mr. Charles Whitlaw.*

*Letter of Mr. Herttell, to the Honorable Ambrose Spencer, late Mayor of the City, of Albany.*

SIR,—Your letter to me, requesting information on the subject of the medicated vapor bath in this city, was received and laid before the members of that institution, and by them referred to the medical gentlemen connected with the establishment, with a request that they would furnish, as far as their experience enabled them to do, the requisite information. In compliance with which resolution, I have received from them the following communication.

The physicians on whom, pursuant to a resolution

of the New York medicated vegetable vapor bath institution, you have called for information respecting the said bath, are happy in the opportunity thus afforded them of communicating the amount of their observation on that very interesting subject.

Aware of the errors which daily creep into medicine through the influence of high sounding names, popular credulity, or theoretical deduction, we have approached this new mode of administering medicine with much caution and careful inquiry, suffering experience alone to direct our footsteps; and after six months' assiduous attention, we are enabled unequivocally to state, that we are convinced that the medicated vegetable vapor bath, under judicious medical regulation, is a mild, safe, and efficient agent, in the cure of a large portion of the diseases to which the human family are liable. In diseases of irritation generally, we have found its application to be followed by a most happy, and in some instances, speedy effect. In glandular, visceral, and cutaneous obstructions—in leprous and herpatic eruptions of the skin—affections of the liver—chronic rheumatism—mercurial diseases—and in weak and stiff joints, where the parts have not been ankylosed by previous disease—we have found the bath, conjointly with other medication, regimen, &c. to afford decided relief; and in a more especial manner have we been led to notice its efficacy in old inveterate local diseases, which have long resisted the efforts of men of



high professional reputation. Those complaints yielding in most cases, and in some amounting to a complete cure, when the general treatment was aided by a well timed and judicious application of the bath.

Our limited experience does not enable us to perceive all the varied forms of disease in which the bath may be ultimately found to be serviceable ; but we hope to ripen in the knowledge as we progress in the use of it, and will in due succession present to the public such facts and observations as experience may elicit.

We will not dwell at present on the precise or entire *modus operandi* of the bath now under consideration ; or defend the superiority of the operation of medicines administered through the medium of the *lungs* over that of the *stomach* : these are points for future inquiry : we are only prepared to state, that this bath, under proper medical regulation, has reduced and cured diseases which the best regulated treatment had previously failed to do without it.

We disclaim all mysticism in the use of this bath. It is in our hands prescribed on the same principles as any other medicine. When a physician is called to a patient, he judges of the cause and nature of the disease, and prescribes the quantity and kind of agent he thinks most likely to relieve it ; precisely on the same principle is the bath in question prescribed, with due regard to the state of constitution and habit of body at the time. We have some rea-

son to believe, that, besides the agreeable stimulus of heat, one effect of the bath is to relieve irritation and diffuse equable excitement over the whole system. Now, if it be conceded, that a great proportion of diseases depend upon undue excitement, and unnatural irritation, goading the system into wrong action, the agency of the bath in the cure of them is at once apparent, and a guide is afforded us of the quantity and frequency of its application.

Medication of the bath is not considered necessary in every case; the soft relaxing power of heated vapour externally and internally simultaneously applied, being sufficient. When medicated, the same regard is had to the properties of the medicating material, as in the exhibition of medicines by the stomach, and the rules of prescription under certain modifications are the same.

In the infant state of this mode of administering medicine, we believe but few beyond the circle of its friends and associates are acquainted with its nature and character. In most of our cities to the south it is in successful operation, under the immediate direction of respectable medical men. In Boston and Philadelphia it has been very lately received with glowing expectations by men in the first walks of the profession, and has been approved and successfully prescribed in difficult cases by some of the most distinguished physicians in this city. In the true spirit of amity we cordially offer to all who feel

interested in alleviating human misery, and particularly those medical gentlemen who have not yet made themselves sufficiently acquainted with the subject to dispel their first prejudices, a full exposition of the principles on which we profess to exhibit this new mode of medication, and all our experience and opinions in reference thereto; satisfied as we are, that the subject only requires to be candidly examined to be understood, and understood to be approved.

Thus much I am expressly authorized, on the authority of the medical gentlemen connected with the institution, to say to you; and though it may be unnecessary and perhaps presumptuous, I shall take the liberty and incur the hazard of subjoining a few remarks of my own.

I mean to notice two or three cases, not so much with a view to add to their testimony of the efficacy of the bath as a medical remedy, as to protect it against the imputation of *quackery*, with which "some persons from ignorance of its efficacy or from prejudice, have denounced it."

The term *quackery*, I understand to mean, "*mal-practice in physic*"—or the exhibition of an injurious or useless pretended remedy, for diseases of the human or animal body; and he who prescribes, or exhibits such injurious or useless pretended remedy, is a *quack*. Neither of the two first of these definitions apply to the bath in question;

because it is a fact, proved by the testimony of regular professional men, and they have "especially noticed the efficacy of the bath in old and inveterate local diseases, and under proper medical regulations, reduced and cured diseases which the best regulated treatment had failed to accomplish."

### *Elephantiasis.*

Mrs. G. was affected with elephantiasis, which, during eight years, had resisted the prescriptions of many professional men in the West Indies, Scotland, and America. The case was radically cured by twelve baths, without any other material medical prescription.

### *Disease of the Liver.*

Mr. C. of this city, was affected with the liver complaint nine or ten years; during which time he had the advice and aid of twelve medical gentlemen of great respectability in New England, and in this city. His case was once examined at one of the medical colleges in Massachusetts, by a professor, in the presence of all the students, but he had never received more than a partial, trifling and ephemeral benefit. A large abscess, which had formed in his side in the region of the liver, was opened, and before it closed discharged nearly a gallon of matter. After it closed another appeared in the same place, and progressed so near to suppuration, as to deter-

mine the attending physician to open it in the course of three or four days. In the interim the patient concluded to try the effect of the bath. A single bath produced an evident and almost immediate diminution of the tumour; and in less than forty-eight hours the last vestige of it disappeared, and has not returned after the lapse of six months. Mr. C. is a well informed and respectable man; and he stated to me, a day or two since, that from the time he was nineteen years of age, he never had experienced more than a trifling and transient alleviation of the symptoms of liver complaint, until he took the medicated vegetable vapor bath; and that now after a succession of baths, he suffers but very little inconvenience from the small remains of his disorder, which is still diminishing.

### *Diseased Hip Joint.*

A physician of a deservedly high grade in the first class of his profession, had a patient affected with a diseased hip joint, for whom he prescribed the usual remedies, but without success. At a time when this patient was so debilitated as to be unable to walk but very little, even with the aid of crutches, it was determined, after much inquiry and investigation, to try the effect of the medicated vapor bath. Six baths enabled the patient to walk about the house with crutches. Six more were succeeded by the ability to walk in the street with crutches. A succession of baths, probably thirty or forty, has ena-

bled the patient to dispense with the use of crutches and to walk the street without them; and on the evening of the 29th of the last month, this person, danced four or five cotillions without any apparent difficulty, or any subsequent injurious effects.

### *Diseased Knee.*

A person of great respectability in the western part of this state, had nearly a year been unable to walk without the aid of crutches, owing to a complaint in the knee. Several of the most respectable medical gentlemen in that part of the country, who were consulted on the case, entertained such various opinions as to the nature of the disease, as left it doubtful whether it was a white swelling or not. Their prescriptions afforded no relief, the patient was taken to Philadelphia, and placed under the care of one of the first professional gentlemen of that city. Obtaining no relief, and being declared incurable, the patient left Philadelphia to return home hopeless of recovery. In this city, it was deemed advisable to consult Dr. —, the physician alluded to in the case last stated; who having witnessed the efficacy of the bath in that case, recommended it as most likely to afford relief in the present. The result proved the efficacy of the remedy; for this patient, after a few weeks use of the bath, was enabled to walk without crutches, and to return home without the need or aid of them. Does not that application of a remedy which effects



relief or makes a cure, approach nearer to scientific practice, than that which is unavailing of benefit to the patient? It is not intended to insinuate, that the unsuccessful exhibition of medicine by regular professional men, is empiricism, merely because of its failure to produce the desired effect. It is absurd to denounce a remedy which relieves or cures diseases, and which have long resisted the efforts of men of high professional reputation, and which, though not yet so generally understood as to be received into favor by the medical colleges, has been recognized, approved, and successfully prescribed in England and in this country, by medical gentlemen of the first class in professional reputation.

It is not to be understood that the aforementioned cases are all in which the bath has proved effectual as a medical remedy. A volume of such, and of those of more or less importance might be adduced. I am not disposed to close this communication without remarking, that it is always a good ground of suspicion, and most frequently a certain indication of empiricism, when a remedy is recommended as an infallible cure for all disorders of the human system, however opposite their causes and different their characters. No such wonderful powers are imputed to the medicated vapor bath in question. Its friends neither allege nor believe that it cures all disorders.

Another characteristic of empiricism is, that it seeks to evade inquiry, and shun investigation. Not



so with the friends of the medicated vapor bath, or the physicians connected with it. They have no objection that it should, as a medical remedy, be subjected to the most prying and rigid scrutiny. On the contrary, they desire it—nay, “in the true spirit of amity,” they have invited it, with a full conviction that on a fair and candid investigation, the efficacy of this bath will be found, in most instances, to cure even prejudice itself.

Some persons, probably for want of correct information, or with a design to bring this bath into disrepute, have confounded it with others which have been abandoned for want of utility, and are justly condemned for the mischief they do. Those who are not disposed to propagate an error, perpetuate a mistake, or give currency to a falsehood, and who may feel an interest in knowing the truth on this subject,—can ascertain, by a well-directed and candid investigation, that this bath, in the construction of its machinery, its *modus operandi*, and in its efficacy as a medical remedy, is essentially different to all those with which it has been attempted to associate and confound it.

With much respect, I am, Sir, yours, &c.

THOS. HERTTELL.

*The Hon. Ambrose Spencer,*

*Mayor of the City of Albany.*

The following detail of the cases, in the relief of which the medicated vapor bath has been found efficacious when all other remedies had failed, is taken from a paper published by the American Society, of which Dr. Ireland is the consulting physician in New York.

The great utility and happy effects attending the judicious use of these baths, in all diseases dependant on, or connected with, an obstructed state of the exhalants, or otherwise deranged action of the verrucæ, sebaceous, subcutaneous follicles, or other structural functions of the skin, are daily and hourly becoming more manifest, as is evinced by many of the most liberal and highstanding practitioners in the city using them in their own families, and ordering them in their private practice.

From a list of the most remarkable cases, which is kept at the establishment for the inspection of those interested, it will be found, that the complaints which most speedily and certainly give way to the use of these baths, with the aid of other proper medical treatment, are the following:—Rheumatic, syphilitic and gouty affections, attended with ulcers, blotches and eruptions of the skin, particularly when originating from the improper use or abuse of mercury. Scald head, daw-worm, salt-rheum, erysipelas, pimpled-face, dry-scurvy, leprosy, ring-worm, tetters, and all other obstinate and hitherto unman-

ageable diseases of the skin. Repelled or receded small-pox, measles, scarlet-fever, and all other exanthematous affections of the skin, are deprived of their alarming symptoms, when brought under the use of these baths ; indeed, by their use the future violence or mildness of the symptoms may be regulated at will. These are facts of the greatest importance, and merit a more strict and minute investigation, by the enlightened, liberal, and inquiring part of our profession. Putrid and ulcerated sore throats, croup, asthma, thrush, hooping cough, quinsy, enlarged tonsils, carache, deafness, tic douloureux, &c. &c., are immediately relieved, and, with proper medical treatment, certainly and quickly cured. Nervous irritability, debility, and other asthenic and phlegmatic affections, attended with cold hands and feet, nervous headache, indigestion, constipated bowels, tawny, sallow, bloated, husky, and dry skin, are found to experience immediate relief and quick recovery. Diseases of the liver, jaundice, bilious and painter's cholic, cramp, spasm, convulsive fits, paralysis, epilepsy, visceral obstructions, dropsy, glandular obstructions, and scrofulous diseases are relieved and cured by the aid of these baths, in a much shorter period, and with more certainty, than any other mode of treatment ever employed. Diseased hip joint, white swellings, rickety and other diseases of the bones and joints, where anchylosis has not absolutely taken place, are certainly benefited, and in most cases ultimately cured by the use of

these baths, with proper diet, &c., &c. In obstinate and long standing intermittents, attended with organic and glandular derangement, the effects of the bath are most happy and certain ; many having been cured by one single bath only, when taken at the very commencement of the cold stage. In typhoid and other ardent fevers, where perspiration and softness of the skin cannot be brought on, and where, consequently, the morbid poison and acrimonious secretions of the diseased body are choked up and retained by an obstructed state of the exhalants and glandular follicles of the skin, these baths never fail to produce the wished for effects, and thereby put an immediate stop to the ravages of the disease. These salutary and curative effects thus produced on the peculiar septic state of the body, must be attributed to the escape of hydrogen and azotic gas, which is known to exist in diseased or putrescent animal matter.

What an unbounded and untraveled field do these very important facts present to the enlightened medical philosophers for investigation.

In sudden colds, checked perspiration, influenza, swelling of the tonsils and glands of the throat, &c., these baths never fail to give instantaneous relief, and produce a certain cure.

If the occasional use of these baths be considered as a source of comfort and pleasure, they surpass any thing of the kind ever invented ; for they not only impart agreeable sensations to the mind, but keep

the skin diaphanous and clear, and the body perfectly healthy. As a general detergent and cleanser of the surface of the body; removing the dead particles of the cuticula; causing the blood to circulate with freedom and ease in the most minute exhalant vessels of the skin; lighting up as it were a fresh and healthy glow, even in the most sallow and tawny countenance, it is incalculably superior to any aqueous bath in the world. They relieve exhaustion, languor and fatigue, raise the spirits, and tranquilize nervous irritability, assist digestion, and increase appetite. These effects are partly produced by the agreeable feelings, and pleasurable warmth of the vapor; and partly by the inhalation and absorption of the oily, oxygen, and other exhilarating gases existing in the effluvia, extracted or set at liberty from the aromatic, antiseptic, and fragrant vegetables employed in the process. Hence is to be attributed also, many of the curative properties of these baths.

*Copy of Dr. Holbrook's Letter to Mr. Whitlaw.*

*Charleston, April 23d, 1825.*

DEAR SIR.—Having attentively examined the effects of the medicated vapor bath upon your patients, I feel it an act of justice to state, that whatever may have been my previous opinions, or if you will, my prejudices upon the subject of baths as a

means of curing disease, I am constrained to allow, that the great and unexpected relief which has been experienced in a short time by the suffering and afflicted under your guidance, has gained my entire confidence: I have in two days time literally seen "the lame his crutch forego." The complete cures of long protracted cases of chronic disease, which now have every appearance of continuing, will render your invention highly acceptable to the medical profession, by removing from their hands a class of patients of which they in general would be gladly freed. I have also been surprised at the sudden cures of several severely acute diseases, which you have effected during your residence in this city. Your new application of a long catalogue of remedies heretofore neglected has commenced a new era in the practice of medicine, and will hand your name down to future generations in the long list of worthies who have benefited the cause of humanity.

I am, with respect and esteem,

Your sincere friend,

MOSES HOLBROOK, M. D.

*To C. Whitlaw, Esq.*

J. H. Duncan, M. D., concurs in the above opinions.



*Extract of Dr. Holbrook's Letter to Charles Whittlaw.*

*Charleston, December 29, 1825.*

DEAR SIR.—Your letter of the 29th of September, from Philadelphia, was received on the 15th of October, too late to comply with your request by the 20th, in New York. From time to time I will, agreeably to your request, send you such bath cases as opportunity may offer. From the hour you shewed me your bath at Mrs. Cockrane's, about the latter end of March last, and described its powers and efficacy to me, I have continued to nurse it as a favorite child; it was the means of restoring a beloved wife to a comparative state of health, and has been the sole means of her enjoying it in a degree that she never could have experienced without its aid; and I verily believe, it has prolonged her life from last May to the present time, with a reasonable prospect of its continuance for, I hope, many years yet to come. She was, as you can recollect, when I first carried her to your establishment in King street, at death's door from phthisis pulmonalis of long standing; cough, expectoration, night sweats, sore throat, diarrhœa, loss of appetite, great emaciation, wakefulness, &c., were amongst the prominent symptoms of her case; and for *eleven months* previous she had not been able to walk about, or even sit up from her bed, more than an hour or two at a time. Now her appetite is good, no cough nor expectora-



tion, good sleep at night, sits up all day, goes up and down stairs at pleasure, and often walks round to the baths, No. 3 Chamber street, and back again after a bath without fatigue;—for this great relief she feels solely indebted to your bath. You appear to have united in your baths, the principles of all that is valuable in bathing; whether ancient or modern,—whether used by civilized or uncivilized nations, residing in the cold or hot climates of the earth.

The *modus operandi* of the process, and its effects in the particular diseases for which it is used, are no less rational than they are truly scientific; and as the vegetable kingdom affords to our *materia medica* an extensive choice in the different classes of their medical virtues, that have been tested by ages of experience—if to convert the essential properties of those simples into vapor, and thus to cause the inhalation of those vapors to effect the relief or cure of individuals laboring under disease, be an innovation upon the science of medicine, so also must every recent chemical product, and every new formula, offered as a remedy, be deemed likewise an innovation.

Of those who have taken the medicated vapor bath in connection with other suitable remedies 246 were cured of the following diseases: 66 of rheumatism, 14 consumption, 21 bad colds, 24 cutaneous affections, 25 fever and ague, 5 bilious fever, 8 liver affected, 4 hæmorrhoids, 1 leprosy, 3 scurvy, 13 scrofula, 4 bad ulcers, 7 asthma, 10 dropsy, 2 dysentery

1 pleurisy, 5 palsy, 7 sore throat, 3 leucorrhœa, 2 suppression of the menses, 2 hæmoptysis, 2 erysipelas, other diseases 84. Total in five months 246.

Heat and moisture united have been long known to the intelligent physicians among the most valuable means of cure in certain cases; and wherever they have been most accurately known, they have been most highly appreciated—and in no way can they be so effectually administered as by vapor baths.

Pure morals have been invariably connected with cleanliness; we would, therefore, claim for this bath the merit of having, in this respect, a friendly influence upon society. Its immediate effects are a pleasant sensation of comfort, and an agreeable warmth upon the whole body; the skin seems extended, and becomes softened; the dry and useless scarfskin soon becomes detached from its whole surface, and then follows a strong inclination to sleep. After a bath the person feels recruited and refreshed, his spirits are more buoyant, he experiences an agility and flexibleness of muscle to which he was before a stranger, and, in general, all the functions of the system are in healthy exercise, with more ease, and certainly with greater strength and energy.

You will see when you compare our little population with your own city, that we have done very well indeed. We shall be always happy to hear from you of your health and welfare, and also all things relating to the baths: all publications relating

to it, which may make their appearance, would be of service in putting down interest and prejudice. Mrs. H. begs a kind remembrance to yourself and lady, in which I most cordially join.

With respect and esteem,

I subscribe myself your sincere friend,

MOSES HOLBROOK, M. D.

*To C. Whitlaw, Esq.*

In the city of Washington a committee was formed, who purchased Mr. Whitlaw's Vapor Bath, for the use of the public; of their first report the following is an extract :

Vapor baths in this country have usually been the mere exposure of the body (except the head) to sulphurous exhalations, with a view to relieve rheumatic affections; or else the application of vapor by a spirit-lamp, to a patient in his bed, so as to produce profuse perspiration. But this latter mode has been found exceedingly inconvenient, and, in some instances, highly dangerous, from the excessive damp imparted to the bedclothes by the operation. Besides, it is evident that no other object can be effected in this way, than merely exciting perspiration, and that without due regulation.

Mr. Whitlaw's vapor bath has not only decided advantages in these respects, but it attains other ends. It has a remarkable effect of clearing the skin

from troublesome eruptions, and giving it a softness and freshness that is a striking indication of improved health. We believe that in all cases it has been useful, but the most numerous class of cases in which it has afforded almost immediate relief, and in several, complete cure, are those of recent colds, rheumatism, inflamed eyes, eruptions on the skin, scrofulous swellings, and general debility.

A considerable number of patients, whose eyes were so diseased that they had been completely laid aside from their usual avocations for many weeks, and suffered intense pain so as to deprive them of sleep, and who had been subjected to the usual course of bleeding, blistering and depletion by cathartics in vain, have been effectually cured by the bath: in some cases, by three times using it; in others, six or eight times. Some of these persons are citizens of great respectability, to whom a personal reference can be made.

*A Letter to His Royal Highness the Duke of York, Patron, the Vice-Presidents, and the Committee, of the Asylum for the cure of Scrofula and Glandular Diseases.*

May it please your Royal Highness,—my Lords, and Gentlemen:—Permit me, on my return from the United States of America, to address you on the result of my exertions to complete the system, which I

have so long and earnestly recommended to the attention of the British nation, for the preservation of health, and for the removal of those maladies which arise from indulgence in improper food, and other causes of virulent diseases or debility.

During sixteen years of diligent pursuit, I travelled through the United States, Canada, and the West Indian Islands as a practical botanist; my attention being principally engaged in the application of botany to the purposes of human life, as they relate to food or medicine.

I have for a number of years devoted the energies of my mind, with a view to discover the best mode of preventing and curing disease. How far I may have succeeded does not become me vauntingly to declare; but the testimony of a great number of the most respectable inhabitants of England and America, as to the efficacy of my new system, may be considered as attaching some merit to it. The general opinion which has been expressed is, that no medical discipline can be compared with it.

What, it will be asked, is there not in the present arcana of medical science, sufficient to ascertain the nature of, and to cure all disorders? No, must be the reply; for according to open acknowledgements made by the first practitioners of the present day, they must look on the immense mass of disease that surrounds them, and lament their want of means to relieve, much less to cure. Here we have an evident proof that the knowledge of the faculty is limited

and the system inefficient. Rather than such ignorance should be allowed to exist, it would redound to the credit of the legislature, or those more immediately intrusted with power, not to allow any person to obtain a diploma who cannot cure all disorders in their incipient state, unless occasioned by animalcule and the stings of venomous animals which immediately prove fatal.

In the various species of inflammation the Indians always resort to the vapor bath, constructed upon a principle peculiar to themselves: it is after the following manner:—A few heated stones, in the first instance, are heaped together, round which, something similar to a soldier's tent is erected. The person or persons to receive the bath are seated round the stones, upon which are thrown herbs, and water sprinkled with the hand. I tried one of them, and must say, that the heat and vapor rising from the stones, were suffocating in the extreme. The discipline was severe; but the beneficial effects I derived from excessive perspiration, when afflicted with an habitual tendency and flow of blood to the head, proved the propriety of inhaling gases by the lungs, in order to relieve and effectually cure disorders in general. I had often observed the various changes produced on my health and spirits, by the various odours I was obliged to inhale on my journies, and could not do otherwise than contrast the practice of giving the various medicines by, and the great danger of administering poisons on an acrid or acid



state of the stomach ; more particular when the bowels and skin were inactive. As such a system, combined with the general use of mercury, must necessarily produce the most injurious consequences, in 1810 I first tried the vapor bath or simple steam of water, and was much gratified to find that my attempt, to give relief by promoting perspiration, was crowned with success. Cases of fever yielded to my system : but finding that too frequent a repetition of the simple steam of water brought on relaxation of the muscles, and frequently inflammation, I had recourse to medication by the use of herbs, in the prepared state I have before mentioned.

In the winter of 1819, the first I passed in London, I was seriously affected with a disorder of the windpipe, chest, and lungs, accompanied with a severe cough. I tried the most active remedies without effect : I had recourse to leeches, blistering and bleeding. I frequently coughed for two hours at a time, and was unable to speak to any one. I frequently brought up blood. Relief appeared as far from me as ever, and I sat myself down in a hopeless state, quite baffled and unconscious of the cause of the complaint, until it struck me that the food I ate and the water I drank, was keeping up a constant visceral inflammation. I examined the Thames water, and found that terrific cesspool, abominable beyond description. I substituted distilled water, and ate the best bread, without deriving benefit ; but after I had, for some time, abstained from butter and the fat of



meat, I found the long desired relief. My attention now was turned to the pastures round London, which, upon examination, I found replete with poisonous plants. The buttercup, in particular, reared its head above the rest, giving strong and undoubted proof that the disorders which generally prevail in this metropolis, have their origin in the portion of the poisonous quality that flower contains. Having by such investigations ascertained the causes, I next directed the whole strength of my mind to remove the complaint. The vapor bath presenting a safe and beneficial remedy, I had one well medicated, and had the pleasure, at the end of six weeks, to find my stomach tranquilized, and the ulcers in my throat and lungs healed.

Presuming that the principal virtue of the Indian vapor bath consisted in the herbs, when thrown upon the heated stones, being converted into gas, I constructed a bath upon an improved principle, by which the properties of herbs could be held in suspension by compressed steam; and it is owing to the vapor being inhaled by the lungs, that the wonderful healing powers of the bath are achieved. My great ambition now was to raise the powers of plants by means of steam passing through them. I partially succeeded in raising their most volatile powers, and consequently got the bath into full operation. The success that attended my mode of treatment, was not only manifest in a great variety of disorders, but a Committee of Gentlemen, who watched my proceed-

ings, gave in their Report a full and satisfactory testimony of the superiority of my system over any thing they had hitherto witnessed.

In 1824, I went to America, in order to procure a supply of plants for medicine as well as for medicating the bath, and to secure sufficient from their proper locality to meet my wants when I returned to England. I took a vapor bath with me, but found I could not use it with the fresh herbs from their native soil, owing to their being in that state too powerful, and their gross particles too strong for the patient to bear and inhale when passed through the bath and digester made in London. I had a new one constructed; the holes of which were made smaller to compress and divide the steam, and make it more fit for respiration. My anticipations were fully realized; as I found, that by compressing the steam, the gummy and resinous properties of the plant were more effectually held in suspension, and passed through the small perforations into the tent where the patient was seated. As the number of patients at this time increased, the various virtues of the plants were fully developed, and consequently their fitness or unfitness for medication ascertained. I soon found that many, which were fit for medicine, had no merit to recommend them for medicating the bath; particularly such as gave out carbonic acid gas. The suitableness of the plants for medication,

after being selected with great care, was proved by trials made on myself and other strong persons.

At this improved stage of the system, I was recommended to take out a patent, by one of the supreme judges in America, to prevent ignorant and vicious persons from bringing the vapor bath into disrepute. I acquiesced, procured one, and soon pointed out its advantages to the public. Such advantages can only be derived by attending to the three following essential rules : First, that before taking the vapor bath, the bowels be properly evacuated, if they require it ; for whatever is in the stomach, whether morbid or healthy, by the action of the vapor, will be drawn into the system. Secondly, the patient should not use any poisonous drugs while taking the bath. And thirdly, no improper medication should be employed. The last recommendation should be as much attended to, as administering medicine by the stomach ; for when the poisonous powers of plants are taken into the circulation of the blood, they are as likely to produce as much harm when inhaled by the lungs as when taken by the stomach. Notwithstanding, the consequences of taking medicine by the stomach are by far more aggravated in a general point of view ; for if taken when there is much acridity or acidity, death has been known to ensue ; whereas, the medicine would have produced no harm, had the stomach been in a healthy state. This circumstance points out the superior advantage of inhaling the virtue of herbs by the lungs, and carrying it into the

circulation without coming in contact with the food. In order to show the effect of the gaseous properties of plants on the constitution, I have only to cite a fact that is of common occurrence in North America. Should poisonous plants, for instance sumach, be thrown upon one of the wood fires, a family, by inhaling the fumes, would be poisoned. I have known instances, where persons have been attacked so suddenly by the poison, that they have not been able to walk or assist each other.

To ascertain the properties of the gases, I had a bladder jacket made air-tight. This I put on a patient, and tied the parts round the neck, arms, and body, quite tight. When the patient began to perspire, the jacket was raised on all sides like a blown bladder. I fixed a stopcock to the jacket to draw off the gas; and upon the gases being analyzed, they were found to vary as much as the disorders of the patient. They principally consisted of carbonic and phosphoric acid, sulphurated hydrogen, ammoniacal, olefient, and azote. Some patients gave out a gas, for which we could neither find a name or a test to detect it. Having placed all the test papers under the patient's armpits, I could, upon examination, discover whether acids, alkalies, salts, calibeates, acrids, or putrid ferments, accasioned the disorder. So truly did the tests correspond with the virulence of the disease, that, without failing once in ten times, I could point out the worst cases by looking

at the test papers. Another method of arriving at the same result, was, by analyzing the perspiration. In all scrofulous cases, acids prevailed ; in cancer, acrimony and alkalies ; in scorbutic, salts ; and in spasmodic diseases, tetanus and lockjaw, calibeates and tonics.

A remarkable instance of the perspiration being impregnated with the disease or what had been received into the stomach, is, that when any person has drank brandy and water half an hour previous to receiving the bath, the towel with which he is wiped will smell of the spirit. Vinegar, garlic, onions, and various other strong smelling vegetables have a similar tendency, in addition to their volatile parts, passing unassimilated through the system ; thus shewing the doctrine of vitality and assimilation, so long taught in the schools as unfounded ; and proving the utility of the bath for accelerating the effects of alterative medicines, drawing them into the system, changing the state of the body in constitutional diseases, and increasing the action of the absorbent system.

In addition to the long catalogue of diseases enumerated by the medical practitioners, permit me to name a few more which came immediately under my own peculiar treatment, and wherein no instance of death occurred,—on the contrary, I left them either perfectly cured or convalescent. The disorders I allude to are the following:—atony of the muscles,

atonic gout, elephantiasis, cholera morbus, cholera spasmodica, quinsy, croup, hooping-cough, measles, and gout.

In Philadelphia, the baths were established under the superintendence of four highly respectable medical gentlemen; and my most grateful acknowledgments are due to Mr. Watson the mayor, Mr. Haines, and other gentlemen, to whose kindness and liberality I am greatly indebted.

I paid a short visit to the city of Boston, where my system was most favorably received; Dr. Ingalls received me with the kindness of former friendship, and introduced me to Doctors Reynolds and Jeffries.

From the length of this letter some apology may be due, for trespassing so long on your attention. There are many incidents, however, which I have purposely omitted, and the account of the various cities which I visited is abridged as much as possible for the present. Yet I trust the result will be as satisfactory to my friends in England, as to those in the western world. Every experiment I have been able to make has confirmed my opinion that scrofula may be eradicated from the kingdom altogether, and that dyspepsy, with its long train of disorders, will be alleviated and cured by pursuing my system of medicine, regimen, and the vapor bath; and that the greatest benefit may be derived from due atten-

tion to the aphorisms of Linnæus, as applicable to the purposes of life and health.

To your Royal Highness, I beg to present my most heartfelt gratitude, and with the greatest respect to subscribe myself,

Your most humble servant,

CHARLES WHITLAW.

No. 14 Finsbury Place,

London, January 1st, 1826.



## CHAPTER VII.



### *Remarks on the use of the Medicated Vapor Bath.*

No person need fear that it will prove injurious. I can safely state that to my certain knowledge the weakest persons who have used the baths have been strengthened by them, and I have not known a single instance in which the repeated use of them have not increased the vigor and activity of the patients. The Medicated Vapor received into the lungs and the Vegetable remedies taken into the stomach, relaxes the excretories by producing a solution of all the external and internal obstructions. The vitiated humors and putrefactions caused by morbid action are effectually removed from the system; a tone of health and animation and serenity of mind ensues, of which a person can hardly conceive the amount, who has not witnessed the operation and its happy consequences. It has been doubted by some professional men whether any effect could be produced on the viscera, by the combination of the medical virtues of herbs coming in contact with the blood on its passage through the lungs in the act of respiration. It is,

however, known that important effects have been produced by vapor from mercury, sulphur, and other minerals, and why not beneficial results be produced by similar use of herbs. Plants possess highly important medical virtues, and hence they are used in various infusions and decoctions in all countries, for the purpose in which experience has pointed out their efficacy. In the bath the herbs are combined according to the object they are intended to effect. Its efficacy in cases of irregular arterial action, has been strongly marked; the pulse when too rapid, have been reduced, when too slow they have been increased: thus an equalization of the circulation is produced and the tendency of blood to the head prevented. This is the certain result of using the bath a few times. It has a remarkable effect on the skin, removing from it troublesome eruptions, giving it a clearness, softness, and freshness, that is a striking indication of health. As a cosmetic and beautifier of the complexion they surpass any thing ever invented. After coming out of the bath it is necessary to wipe the body perfectly dry with as much friction as possible, and when dressed, to take a cup of black tea, and some refreshment. In half an hour you may go and walk in the open air. Nothing more is necessary than to avoid a sudden chill from a cold draft of wind, or a damp atmosphere.

These baths accelerate the effects of alterative medicines, drawing them into the system, changing

the state of the body in constitutional diseases, and increasing the action of the absorbent vessels.

The specific effects are—

1. To equalize the circulation of the blood, and hence to remove coldness of the hands and feet, and lessen the determination or flow of blood to the head.
2. To promote sweat, and re-establish insensible perspiration, and thereby relieve symptoms of internal inflammations.
3. To diminish nervous irritability, and cure tic-douloureux.
4. To promote cutaneous eruptions, and remove diseases of the skin.
5. To remove the effects of mercury from the system.
6. To promote absorption of dropsical effusions.
7. To relieve difficulty of breathing, and cure asthma, and other diseases of the chest and lungs.
8. To strengthen the stomach, and impart a tone to the digestive organs, and cure dyspepsy and its consequent disorders.
9. To promote the healing of scrofulous and chronic ulcers.
10. To remove gouty and rheumatic pains and swellings from the joints, and cure lumbago, sciatica, &c.
11. The quinsy—the bath never fails to relieve it.
12. The croup—it may be regarded as a specific.

13. The hooping-cough—gives great relief.
14. The measles—a certain specific.
15. To cure discharges of blood from the lungs, and other internal organs of the body.
16. To cure acute and chronic inflammation, the bath judiciously medicated, is a certain specific.
17. To cure gout, in all its forms, in a shorter period of time than any agent hitherto employed.
18. The bath has never failed to cure cholera morbus.
19. The use of the vapor bath, combined with the simple compound medical decoctions, are valuable remedies for the cure of fevers of every kind.
20. They relieve exhaustion, languor, and fatigue, raise the spirits, tranquilize nervous irritation, assist digestion, and increase the appetite.

Of the healthfulness of vapor bathing there can be no longer a doubt, and it is astonishing that it is not more generally known and practiced. A clean and healthy state of the skin contributes essentially to promote health and cheerfulness. Agreeable feeling is always the consequence of using the vapor bath. Another result is a peculiar softness of the skin; the muscles and limbs acquire elasticity with strength of nerve. A glutinous matter which has filled the pores is forced out, and removed with all the impurities of the skin, which no other bath is capable of doing. This accumulation of unhealthy matter be-

ing removed, free perspiration follows. Colds, nervousness, and irritability are subdued, and the sick and weakly feel like new beings. It is surprising to observe how negligent we are of the greatest benefits of which we might avail ourselves. Thousands of dollars are annually squandered in payment for nostrums which cannot do the least good ; and countless hours of misery dragged out in sickness, and the best part of our lives thrown away by rejecting or neglecting the simple practice of vapor bathing. The practice is not attended with much expense, and if it was five, or ten dollars, it could not be expended in any other way with half the benefit that would be derived from a constant use of the medicated vapor bath. If our citizens generally would practice this mode of medical treatment, and pay strict attention to their regimen, this city would be remarkable for health, and the inhabitants for longevity.

My rule is to put the patient into the bath at a temperature of  $85^{\circ}$ , and gradually raise it to that degree which the case may require. In consumptive cases we raise the temperature to  $98^{\circ}$  or  $102^{\circ}$ ; in most diseases,  $104^{\circ}$  to  $106^{\circ}$ —rheumatism  $110^{\circ}$ ; fevers to  $110$  or  $120^{\circ}$ , depending upon circumstances. A bath at  $120^{\circ}$  is far from being oppressive. If any disagreeable sensations are experienced, it is at  $98^{\circ}$ , when the perspiration is upon the point of pouring forth.

Capt. Parry states, in his expedition to the North

pole, that those of his men who used the vapor bath, before taking their watch on deck, could stand the cold and remain at their post twice as long as those who did not avail themselves of its stimulating and hardening influence. Here is a striking evidence, that we are less liable to take or suffer from cold after taking a bath than before. It actually prepares the system to withstand a greater degree of cold than we otherwise could, because it equalizes the circulations and determines them to the surface and extremities, thereby remove coldness of the hands and feet, and diffuses a warmth over the whole body. Its renovating effects on the whole system, are suddenly manifested by returning health. Therefore they should be the resort of the old and young; the sick and the invalid. The Indians of our country habitually resort to the vapor bath, to cure themselves of their diseases, particularly in cases of inflammation. They construct their baths in their own peculiar way, by first sinking a hole in the ground into which they throw heated stones, and then seat the person who is the subject of the bath over the hole, having first a blanket spread over the shoulders, then followed by herbs and water thrown into the hole, till the person perspires most profusely.

Another mode of theirs, is to heap together a few heated stones, over which a tent is erected; the person to receive the bath, is seated near the stones, upon which is thrown herbs and water, that immediately envelopes the whole body in a dense vapor.

The beneficial effects of this mode of treatment, they find are exceedingly powerful in relieving and curing disease. I have administered the vapor bath to several Russians, who informed me that they had been inured to the bath from their youth, and seldom took the vapor, in their own country, at a temperature below 130 degrees, and frequently as high as 150°, and after taking a bath plunge into a pool of cold water, roll in the snow, or throw themselves into the stream through a hole in the ice. This sudden change they say produces no ill effect, but on the contrary a salutary and happy influence, by hardening the system, and preparing it to bear the rigor and severity of their climate. Not only in Russia, but in all the cold regions of Europe, as well the cottager, as the nobleman, has his vapor bath, to which they resort in sickness and in health, for pleasure and for cleanliness. Their method of producing vapor is similar to the Indians. They pour or dash water upon heated stones, cannon balls, a stove or furnace.

The Whitlaw vapor baths are very extensively used in England, Scotland, and Ireland, but not to that extent that the vapor or hot air baths are used on the continent. Mr. Whitlaw mentions, that, in order to ascertain what degree of heated vapor he could bear without receiving any injury, took one of his baths in the city of New York, in the month of December, the thermometer at 5° above zero. At a temperature of 130, he dressed, went immediately into the street, and walked two miles



up Broadway, facing the North wind, without experiencing the least inconvenience.

### *A Russian Bath.*

The Rev. R. B. Paul, in his Journal, says:—"The room into which I was ushered was a small neat dressing room, warmed at a temperature of eighty degrees of Fahrenheit, which could be increased at pleasure by opening the door of the bathing room, or the window of the dressing room. This room was furnished with a sofa, chairs, &c. I undressed immediately, and walked into the bath room, the floor of which, although only at a temperature of 100 degrees, seemed to me insufferably hot. In one corner of this room stood a large stove, which reached almost to the ceiling. On the side of this stove were four wooden shelves or stages, one above another, each furnished with a rest for the head. The temperature increases as you ascend. Whether I was not fully aware of this, or whether in my agitation I had forgotten it, I do not know; but so it was, that before I had been in the room a minute, I found myself on the highest shelf, from which I made, I believe hardly more than one step to the floor, for the heat seemed at that time unendurable, even for a moment; the truth is, that until the perspiration is completely established, a sensation of fever is felt, with burning of the skin and throbbing of the arteries; but when the pores are once opened, every

uneasy sensation ceases, and you mount from stage to stage, wishing every two or three minutes for an increase of heat, until at last you actually find yourself, as I did, lying on the highest stage of all, at a temperature of 124 degrees, without feeling the slightest inconvenience. On the shelves which surround the stove, there is an array of bright brass basins; and on one side are two brass cocks which supply cold and warm water, and a pipe with a large rose which acts as a shower. I went into the bath many times after, and feeling much more at my ease, I proceeded regularly in the operation. First I mounted one of the lower shelves, and after remaining there a few minutes, I descended to the floor and washed the whole of my body in cold water. I then lathered myself from head to foot with soap, rubbing every part of the body with the soft or inner bark of the linden tree. After a second sprinkling of cold water, I mounted to the highest stage, and immediately the perspiration streamed from every pore in such profusion that I could hardly believe that I had wiped myself dry before I mounted the stage; so case hardened had I become, that I sat some minutes on the top stage, at a temperature of 132 degrees, without feeling more inconvenience than I had experienced when I first entered the bath room. But I found afterwards that I had by no means felt the highest degree of heat which a Russian bath is capable of affording; for when I was in one at Moscow, our Italian *valet de place*, suddenly entered the room, and seizing a large vessel of water, dashed the

contents into the furnace, which is filled with hot cannon balls. Unfortunately I had not then my thermometer with me, but from the sensation I experienced, I should think heat for two or three seconds, could not have been much less than 170 degrees."

Sir Arthur Clarke says, "In the vapor bath, the stimulant power of heat is modified, and tempered by the moisture diffused through the air; and as the elastic vapor, like air, is a less powerful conductor of heat than a watery fluid, the effect of vapor in raising the temperature of the body, is much less than that of the hot bath. Its heating effect is also further diminished, by the copious perspiration which ensues; so that on all accounts the vapor bath is safer, as it is in most cases, more effectual than the hot water bath, and may be employed with success, when the hot bath would be attended with danger. The utility of this application is obvious in all cases of internal inflammation; it draws a great quantity of blood to the surface, and relieves the internal parts by the secretion of the skin, which is the mode nature takes to resolve inflammations.—Besides an increased perspiration, other effects are produced on the system; equal and due action is restored to the surface, and a highly agreeable sensation is produced, which renders the influence of cool air safe and desirable. There is no danger whatever from cold—the truth is, we are less liable to cold after vapor bathing, than at any other time, for the increased circulation on

the surface of the body keeps up a great degree of heat, which the non-conducting state of the skin long preserves in the medium even of a cold atmosphere."

"Dr. D. T. Coxe of this city," says Dr. Bell, "has published a short paper on the efficacy of the vapor bath, which he superintended at the time, in various diseases. In most of them the vapor was inhaled as well as applied to the surface of the body. The diseases enumerated, greatly relieved, or entirely cured, were chronic disease of the liver, rheumatism, ulceration of the fauces, pimples and other blemishes on the skin, enlarged spleen, with tendency to dropsy, dyspepsy, inflammation of the kidneys, hemicrania, influenza, and erysipelas. The erysipelas, says Dr. C., was one of the diseases which yielded readily and kindly to the influence of the vapor bath.

It was remarked that the peculiar odour of some of the articles, through which the steam was made to pass before its being applied to the body of the patient, was perceived in the urine.

The temperature of the bath is not regularly mentioned by Dr. Coxe. In one case, a person suffering under cutaneous eruption, accompanied with a torpor of the liver, it was at first about 104 degrees, in which the sweating was profuse. Each time the temperature was augmented, until it reached to between 115 and 120 degrees. This case serves to illustrate a fact mentioned by all writers on this subject, viz. the impunity with which a person who has been exposed

to the elevated temperature of a vapor bath can subsequently bear cold. The person in question 'was in the habit of taking several tumblers full of cold water while in the bath; and neither in this case nor in any other in which this usage was followed, did any bad consequences result.'

In the apparatus used by Dr. D. T. Coxe, after the plan obtained from Mr. Whitlaw, and the invention of which was claimed by the latter, 'the vapor, generated in a boiler, escaped through a bent tube, furnished with a stopcock, into a small basin or receiver in the lower part of a box. The top of this receiver, into which herbs or other articles were placed, as well as the upper covering of the box was perforated, and allowed the free ascent of the medicated vapor into the upper or curtained part of the contrivance where the bather sat, and either inhaled the vapor, or had it merely applied to the surface of the skin, according to the situation of his head, whether within or exterior to the enclosure.' "

Dr. Andrew Combe, on vapor bathing, says :—  
" On the Continent, the vapor and hot air-baths are had recourse to, both as a means of health and in the cure of disease, to an infinitely greater extent than they are in this country. Their use is attended by the very best effects, particularly in chronic ailments, and there can be no question that their action is chiefly on the skin, and through its medium on the nervous system. As a means of determining to the surface, promoting cutaneous exhalation, and equali-

zing the circulation, they are second to no remedy now in use; and consequently, in a variety of affections which the encouragement of these processes is calculated to relieve, they may be employed with every prospect of advantage. The prevalent fear of catching cold, which deters many from using the vapor bath, even more than from warm bathing, is founded on a false analogy between its effects and those of profuse perspiration from exercise or illness. The latter weakens the body, and, by diminishing the power of reaction, renders it susceptible of injury from sudden changes of temperature. But the effect of the vapor bath, properly administered, is very different. When not too warm or too long continued, it increases instead of exhausting the strength, and, by exciting the vital action of the skin, gives rise to a power of reaction which enables it to resist cold better than before. This I have heard many patients remark; and the fact is well exemplified in Russia and the north of Europe, where, in the depth of winter, it is not uncommon for the natives to rush out of a vapor bath and roll themselves in the snow, and be refreshed by doing so; whereas, were they to attempt such a practice after severe perspiration from exercise, they would inevitably suffer. It is the previous stimulus given to the skin by the vapor bath which is the real safeguard against the coldness of the snow.

The vapor bath is thus calculated to be extensively useful, both as a preservative and as a remedial



agent. Many a cold and many a rheumatic attack, arising from checked perspiration or long exposure to the weather, might be nipped in the bud by its timely use. In chronic affections, not only of the skin itself, but of the internal organs with which the skin sympathizes most closely, as the stomach and intestines, the judicious application of the vapor bath is productive of great relief. Even in chronic pulmonary complaints, it is, according to the continental physicians, not only safe, but very serviceable; particularly in those affections of the mucous membrane which resemble consumption in so many of their symptoms. Like all powerful remedies, however, the vapor bath must be administered with careful regard to the condition and circumstances of the individual."

### *Eastern Bathing.*

Buckingham, the Oriental Traveler, says :—  
“ Among the Mohammedans, baths are as numerous as their mosques. I doubt if in their cities a single street can be found without one or more of them. There is a general conviction in the East, that personal cleanliness is favorable to morality; while on the other hand, vice and filth go naturally together. Baths are to be had at all prices. For a single *para* (in value about one-fourth of a cent) you are furnished with a private apartment, hot water, a towel and soap, and have liberty to stay half an hour.

It is common with the Mohammedans to practice



ablution before prayer; and they all bathe once a day at least. But while a bath may be had for a quarter of a cent, they ascend in price, according to the scale of accommodation, until, for some, you must pay five dollars. Separate baths are provided for the sexes; and the sanctity of this separation is such, that a man who should violate it would be in imminent hazard of being murdered on the spot.

Entering into one of these costly baths, for example, before dinner, you find a chamber, the windows of which are darkened with colored glass and odoriferous plants. The air is cooled by showers from a fountain. Agreeable attendants are provided to amuse you with conversation. Some of these are *improvisatori*, who will off hand invent for you an interesting tale, in prose or verse; or, if you prefer music, they will sing you an Arabic song, and accompany it with the guitar. You are then conducted into a warm chamber, and thence into another yet warmer.

Here, perhaps, you will find singing birds and some books; but of the latter the native bathers rarely make any use. Your chamber grows warmer and warmer, till at length you are glad to pull off your clothes.

You are then laid out by your attendants on a marble slab. They are armed with gloves made of the Cashmere goat, which is rough, but not sufficiently so to give you pain. They then commence the process of *champooing* you. They draw out

every joint, and let it go, till it cracks like a pistol. They twist about your arms; they bend your elbows, and thence, passing down the back, they proceed in a similar manner, till you hear a report from each one of the vertebræ.

This loosening of the joints is said to give suppleness to the frame; under which persuasion it was practised, as we know, by *athletæ*, the runners and the wrestlers of the Greeks.

They next proceed to a process of violent friction over your whole body, and after it is completed, the skin feels like satin, and partially retains this delightful smoothness for a day or two. I am well persuaded, that half the diseases which prevail among us may be traced to obstructions of the skin; and that the use of the bath, accompanied by severe friction, conduces in an eminent degree to health and long life.

After you have undergone this series of cracking and rubbing, they finish off by plunging you into a bath of rose-water, up to your neck. You are then furnished with coffee, the *chabouque* or long pipe, and with sherbet, a liquor compounded of the juice of the pomegranate, orange, and citron, but contaminated by no admixture of alcohol."

## RECOMMENDATIONS.

*Whitlaw Medicated Baths.*

Nearly opposite this office, Dr. Gerrish has established what are called the *Whitlaw Vapor Baths*, which have been so well spoken of by several physicians of the city, that we have visited the proprietor for the purpose of examining into the machinery, the mode of conducting the operations, and to inquire into the real merits of this system of medication, as conducted in this place. Were our practitioners to prescribe these baths much more frequently than they do, they would be much gratified with the results. This is an opinion based upon a careful investigation of the principle of preparing them. It is not pretended that every disease in the catalogue of human woes is dissipated by steam impregnated with essential oils; nor need any person apprehend a deception at the hands of Dr. Gerrish. Under the judicious guidance of a responsible physician, we feel warranted in saying that great good, in a restoration of impaired health, may often be effected by the Medicated Vapor Bath.—*Boston Medical and Surgical Journal.*

*Medicated Baths.*

Dr. Gerrish has accomplished a desideratum in the structure of his very excellent medicated steam

baths. The boiler is beneath the floor of the receiving room, out of sight, and the steam is conducted through pipes into the neat apartment where the patient is to receive its influence. Since all classes of practitioners in the city concur in the opinion that this is an important mode of treating very many diseases, they can alike direct those who consult them to Dr. G.'s elegant accommodations in Graphic court, nearly opposite the head of Franklin street. It is a convenience to have access to such a place; any form of bath which the physician may think it advisable to prescribe, is readily given by Dr. Gerrish, with as much precision as an apothecary would weigh out the several parts of a prescription. The bath rooms are tastefully fitted up, and a degree of neatness pervades the whole establishment, creditable to the proprietor's good management.—*Ibid.*

### *Dr. Gerrish's Vapor Bath.*

To speak in commendation of Dr. Gerrish's system of using the Whitlaw's Medicated Vapor Baths, would be altogether unnecessary, were it not for the erroneous opinion of many, that his system is the same as that practised by Thomsonians. We believe there is no resemblance in the two systems; and to set the subject in a just light, we will give a sketch of the *modus operandi* pursued by Dr. Gerrish.

The medication is enclosed in a condensing box, and steam being forced upon it from an adjacent boiler, the medical qualities of the herbs are held in sus-

pension by compressed steam, and their essential oils and sanative properties carried up in the form of vapors, cooled to a temperature fit to be inhaled into the lungs, producing a grateful and beneficial effect on the whole system, both internally and externally. The baths are varied to adapt them to various constitutions and diseases ; and they may be advantageously taken by all, from the most athletic and robust, down to the most delicate and feeble, without the least apprehension of taking cold—the use of them proving a tonic, and consequently invigorates and fortifies the system. When cases require it, simple internal remedies are given. Dr. Gerrish has devoted much study to elicit important truths on the subject of Vapor Baths ; and it affords us pleasure to learn that he is rewarded by a generous patronage, which would be greatly extended if the benefits of his baths were more generally known and appreciated.—*Independent Messenger*.

The following remarks are from the pen of the late Hon. William Sullivan :

*Dr. Andrew Gerrish's Medicated Vapor Bath.*

There are two principal causes of *illness* : Ignorance of the laws of our existence, and disregard of these laws, if known. When science was revived, in the middle ages, it was taught in languages which were known only to a few ; and law, theology, and medicine, became mysteries to all who had not made

them, exclusively, a study. Mystery still attends them ; names, signs, and terms, are beyond the comprehension of a large portion even of those who are well educated. When, therefore, a man of science publishes books in which learned terms are explained, and brings his subject down to the level of common sense, he is a benefactor.

The above suggestions are made as introductory to some notice of the medicated vapor baths, as applied by Dr. Andrew Gerrish. This gentleman has a number of these baths for persons of both sexes, in a very neat, well kept place ; and he seems to be well acquainted with the mode in which the vapor should be applied in the various cases which occur. He is courteous and obliging in expressing his opinions, to those whose cases require particular attention. There seems to be no question that the judicious use of a vapor bath may be a cure, in many cases, and may arrest, and prevent, in others. For the *healthy*, it is one of the surest, safest, and easiest modes of getting a very clean skin, especially in wintry weather. Dr. J. V. C. Smith, physician of the Quarantine Hospital, has spoken, in a medical publication, commendatorily of Dr. Gerrish's establishment.—*Boston Atlas*.

## CHAPTER VIII.



### P A T H O L O G Y .

THE doctrine of Disease has been a subject of controversy in all ages of the world, and this agitated question is not yet settled. We intend to lay down such rules, if followed, as will lead us to ward off or judiciously treat disease. Nature calls upon you to obey her laws; hers is the voice of reason, hearken to her and she will conduct you in the simple paths of truth, and in the road to health.

*The Excretions the only outlets of Disease.*

The Author of our existence, has wisely established certain laws in the animal economy, to guard and protect it against the inroads of disease, and when formed, to remove it. By these laws we understand an inherent power of the system to throw off any, and every thing which is foreign, or injurious. Let us now inquire in what manner this is performed. A little attention to the system, shows us that there are



certain outlets, or excretions to the system, designed especially to carry off every thing retained which is incompatible with health. When these excretions perform their offices, a person may be said to be well; but when they cease to act, or act imperfectly, morbid matter is retained, and derangement follows.

### *The Skin.*

The whole body is covered, and lined with this membrane, through which there are innumerable pores or openings destined to carry off every thing which is not salutary, or compatible with a healthy state of the system. The fluid which thus passes off, is distinguished into sensible and insensible perspiration. By looking at any part of the body in the summer season, with a microscope, vapor or steam may be seen to rise like a fountain, which, coming in contact with the atmosphere, becomes condensed, and falls down in the form of drops which we term sweat or perspiration. When this is kept up, and continued, the blood is pure, being separated in this manner from every impurity. But when this perspiration becomes checked by cold, the humors engendered in the system, are retained, carried into the circulation, settle upon some organ, that is most predisposed to disease, and become a source of irritation.

It may be translated to the lungs, brain, kidneys, and other organs, causing inflammation, and pain; or it may remain in the blood, and cause fever.

*The Bowels or Intestines.*

The bowels or intestines are also designed by nature to carry off much that is noxious or injurious to the system, and which does not serve the purposes of health, or nutrition. Hence the diseases that arise from their long constipation. It cannot otherwise be, but that such a great quantity of extraneous and feculent matter lodged in the body, must disorder it. The effluvia arising from the operation of physic, is an evidence of the deleterious nature of retained alvine discharges.

*The Kidneys.*

From the blood is secreted the urine through the medium of the kidneys, and which is another excretion designed to rid the system of something extraneous, foreign or morbid. When this excretion is checked, or if it does not duly perform its office, certain noxious matters are retained, and are mixed with the circulating fluid, and prove another source of morbid derangement, such as dropsy, inflammation of the kidneys, and how many other complaints, it is difficult to decide. That diseases are carried off by a copious discharge of urine, every physician knows. The effects which arise from the suppression of urine, points out the purpose for which it is designed.

*The Stomach.*

The stomach is another organ by which nature expels morbid agents. When violence has been done by overloading it, or when any thing poisonous or dangerous has been received, or when any contaminated fluid is poured into it, or when it becomes unhealthy or diseased from any cause whatever, the peristaltic or regular motion of it, is inverted, *vomiting* commences, and its contents are discharged, its tone restored, and health follows. Thus we see that this organ is designed to eliminate deleterious agents, and constitutes therefore an important excretion.

*The Lungs.*

The lungs are another organ which serve the purpose of secreting from the blood offensive agents. They not only throw off carbonic acid gas, but likewise mucus, and when they become diseased more especially, they cast off pus, which, if retained, would cause suffocation. Hence we see in pulmonary diseases, an effort of nature, to effect a cure, through the medium of this organ.

Inasmuch then, as health depends upon each and all of these performing their respective offices, it follows that when any one becomes torpid, or ceases to perform its duties, that morbid excitement is the consequence; and this shows in a most striking light, the proximate cause of most diseases, at least, being

nothing more or less than the retention in the system of morbid perspirable matter, producing irritation, morbid action, and a deviation from health. These humors are no doubt taken into the system through the medium of the air, food, or drink.

Although the symptoms of complaints in general, are very different, yet this is not owing to the exciting cause; this being similar; but to the peculiar structure or the tissue of the organ which is the seat of the disease.

### *Indications of Cure.*

If then the cause of disease consists in the retention of morbid agents, and a recession of blood from the surface; if it be caused by morbid excitement, as we have already shown; if a deviation from a healthy standard is owing to the inactive state of the excretions, does not the plainest dictates of reason, common sense, and experience, show the necessity of restoring those secretions? Is there, or can there be, any other indications of cure, if they are the only channels which nature makes use of to restore the system to health? and we confess we know no other. There is an effort of nature to restore these suppressed evacuations. The whole art of physic, then, consists in aiding her salutary efforts. Then what else is there to accomplish, but to give such medicines as remove the obstruction and restore the secretions? This is shown by the crisis or termination of diseases

in general. They subside when perspiration takes place upon the skin, by diarrhœa, by vomiting or urine, or expectoration by the lungs.

*The Physician can only be the Servant, or Handmaid of Nature, in the Cure of Disease.*

In reality we can cure nothing. We can only remove the offending cause, while nature performs the cure, and therefore lay it down as a fundamental maxim in medicine, that all the physician can do is to act as a servant, or handmaid to nature.

This doctrine is further exemplified by the writings of Dr. Hillary, who states in his secret of curing diseases, by adopting a better system, "that by accurately observing all the motions, endeavors, and indications of nature, to carry off and cure diseases; and by observing by what *critical evacuations* she does at last cast off the morbid matter which caused them, and so restores health; we may, by the same method of reasoning, know both the methods and the means we should use to assist *nature* in producing those salutary effects; if we avoid all hypothetical reasoning, and by thus observing, following and assisting *nature*, agreeably to her indications, our practice will always be more satisfactory and successful.

"For the human body is so wisely and wonderfully formed, that whenever any noxious matter is got into it that would be injurious or destructive, we may observe, that it always so irritates, stimulates

and offends nature, that she always exerts her power, or the *vis vitæ*, to throw it off. And she acts with great regularity, order, and uniformity, in her endeavors to expel the offending matter out of the body; and by carrying off the disease, restore health and preserve life.

“ And thus, by observing, investigating, and truly knowing the diseases and their causes, and justly reasoning therefrom, we shall know when to assist nature according to her indications; *and in this is contained the chief part of medical knowledge, and the true scientific principles of the medical art. And when we shall thus have learned of nature, by observing her laws and indications, we may reasonably hope to render the theory and practice of physic beneficial to mankind.*”

## CHAPTER IX.



### *On the Agency of Heat and Cold in the Production and Removal of Disease.*

The influence that cold possesses in the production of disease, must be evident to every person of the least discernment. Medical writers have imputed the causes of disease in general to the vicissitudes of the atmosphere: but the immediate effect of cold upon the system seems to have been but little understood, or very imperfect views of it entertained. Nor has the agency of heat in the cure of disease been well understood, or duly appreciated. It is somewhat remarkable that both heat and cold are the cause of most diseases, while they at the same time are (the former more particularly) so eminently subservient to their removal. It would appear that a certain temperature of the body is necessary to maintain a healthy state of the system. Persons, however, will bear a great degree of heat or cold, if applied to the system gradually; but on the contrary if suddenly applied, the most serious effects follow. Great heat, however, can be much better borne, than a great degree of cold, and it is on this account that cold plays such an important part in the production



of morbid excitement. Some parts of the system is much more susceptible of cold than others. The minute blood vessels of the surface, coming in contact with the atmosphere, are more susceptible of its impression than the internal organs. Cold, long and suddenly applied, brings on a torpid or inactive state of the capillary vessels, by which the pores are closed, morbid matter retained, and a deviation from health follows. The blood becomes obstructed in these vessels of the skin, consequently it is withdrawn from the general circulation, and the balance of it is lost, impaired, or rendered unequal. The consequence of all this, is, that the blood recedes, or is driven back from the surface to some of the internal organs of the system; the heart and arteries become distended with an unusual quantity; increased action or more powerful contractions follow to return the blood back to the surface, and to overcome the constriction of the capillary vessels, which greatly increases the circulation.

When we reflect upon the vast quantity of blood contained in the small vessels of the skin, we must be sensible of the effect it must produce upon the system, when so much is stagnated or obstructed, or is driven back and forced upon the vital organs. The great blood vessels become preternaturally full, the various functions impaired, and inflammation and congestion follow. Whatever organ or part of the system is the most predisposed to disease, will feel the effect of this change. It may be translated to

the brain, and create inflammation of the lungs, causing pneumonia ; or it may affect the liver, stomach, or bowels. The irritation, occasioned thereby, proceeds from two causes. First, an effusion of blood to the part. Second, morbid matter retained in the circulation.

The intimate connection between the skin, the stomach, the heart and arteries, intestines, and other organs, readily accounts for the effect of cold suddenly or long applied to the surface. Sometimes even very slight impressions, thus applied, cause the great quantities of blood in the minute vessels of the skin to recede, and to be thrown internally upon some portion of the viscera. Reaction then takes place. The heart propels the blood with redoubled energy back again to the extremities or the surface, by which the organ affected is relieved of its oppression. It appears, therefore evident, that there is a flux and reflux of blood constantly passing from the heart to the centre of the surface of the body. Thus there is a regular balance or equilibrium maintained in the circulation, which constitutes, as it were, a standard of health.

When this balance of circulation is lost in the system ; when the blood becomes unequal, or is driven from one part of the body to another, from the influence of cold or any other cause, morbid excitement or a deviation from healthy action is the consequence. When there has been inflammation or pain of the head or upper portion of the body, there

has been a coldness of the extremities. I therefore always first, in the treatment of such complaints, direct my attention to the part thus primarily affected. My great object is to recall or restore the circulation, as soon as possible, by bathing the feet, and by giving such medicines as promote a determination to the surface; and this practice is always attended with the happiest effect. As soon as the cutaneous circulation takes place, the disease is relieved. It is very clear that the blood recedes from the surface, in fevers, and in a great variety of other complaints. After the body has been exposed to cold, suddenly or long applied, we see that the circulation ceases or is lessened in the capillary vessels, by the chills, sense of coldness, with a husky or dry state of the skin. The great heat and commotion that rages throughout the system, arises, no doubt, from an engorgement in the heart and arteries, with the irritation from the morbid matter retained in the circulation. It requires, therefore, but a small share of common sense or discernment to learn the indications of cure; which are, not to abstract any portion of blood from the system, which decreases the power of overcoming the disease in proportion to the quantity taken by inducing debility, but to recall the blood to the surface by the application of heat, steam, or sudorific medicines, or in other words, to equalize the circulation.

When disease proceeds from too much heat of the body, or when fever arises to expel from the system

morbific matter, and to equalize the circulation, it often becomes necessary to moderate it by lessening arterial excitement. In such cases, tepid or cold water will have a salutary effect, by abstracting a portion of heat from the body by the evaporation that follows, together with the stimulus given to the exhalent vessels of the surface.

### *Febrile Diseases.*

Fevers, as we have shown elsewhere, proceed from a check of perspiration, cold commonly proving the exciting cause. It must be evident, therefore, that the first duty of the practitioner is to remove the injury which it has caused to the system. The skin has become torpid, its pores closed, by which the vascular system particularly is disordered as a consequence. Heat must, therefore, be applied both internally and externally, to remove this morbid state of the skin, by restoring perspiration.

Dr. Armstrong, speaking of typhus, observes, "the warm bath is a safe and efficacious remedy, and, with the means above mentioned, has considerable effect in equalizing the circulation." Again, in speaking of prostration, he remarks; "This depression of the animal heat, however, occasionally come on in the collapse of typhus, without any apparent cause; an instance of which I have witnessed in a medical gentleman, who I believe would have died if external and internal warmth had not been promptly

and perseveringly employed. When the pulse still remains oppressed, and the tide of the circulation does not return to the surface, some wine with warm water should be occasionally exhibited, and the patient speedily immersed in a bath, strongly impregnated with salt, and at least about the temperature of 100 deg. He should remain in the bath till his skin becomes warm, and on being removed, it should be well rubbed all over with hot flannels; and he ought then to be laid in an aired bed with bottles of warm water at his feet. This plan together with tepid wine and water occasionally, will often promote a flow of blood towards the skin, and considerably relieve the viscera from congestion."

### *Inflammation of the Lungs.*

The lungs are very liable to receive morbid impressions from the influence of cold suddenly applied to the body. After a person has been very much heated, and immediately after exposed to a current of air; or if he has been long exposed to the sedative and debilitating influence of cold, the pores become closed, morbid matter is retained in the system, and the blood in an accumulated quantity is thrown upon the mucous membrane, or the parenchyma of the lungs. Irritation and inflammation takes place, which, if not arrested, is followed by suppuration. Now under these circumstances, *perspiration must be immediately resorted to, to counteract the deleterious*

*effect of this morbid agent, viz. cold.* The blood also in this case, as in the other, recedes from the surface and is thrown upon the lungs, causing engorgement and irritation; therefore it must be immediately recalled by these means. It is here that we have it in our power to arrest that terrific monster, phthisis pulmonalis, or consumption, which daily slays its thousands, by instituting this course of treatment which will terminate the disease by resolution, or without suppuration. Bleeding, so far from accomplishing this desirable end, will inevitably bring on dangerous or fatal prostration, and in all probability carry the patient to an untimely grave.

### *Dysentery.*

The dysentery is a disease in which the application of warmth to the surface, and diaphoretic medicines, are very serviceable. It has been thought by some, particularly the ancient physicians, to be a fever translated to the intestines, and from the effect of perspiration in the complaint, we are led to believe, that it arises from a retention of humors or acrid and morbid matter which is translated to these parts. As soon as the patient begins to perspire freely, he experiences relief. External heat in the form of fomentations, are invariably attended with an admirable effect in bowel complaints of every description. They divert the fluids from the intestines to the skin,



and by their stimulating and relaxing properties, prove very serviceable. The surface and extremities in these diseases are pale and cold, from which we see that the balance of the circulation in the system is lost.

### *Pleurisy.*

In pleurisy I have had cases, when the patient appeared to be just alive from the cause of the balance of the circulation in the system being lost. The irritation upon the pleura was so great, that a sensation was created as if needles were piercing it, and the breath nearly gone. In this case, when the disease threatened immediate destruction of life, and when scarcely a physician could be found who would not have copiously drawn the vital fluid, and that repeatedly for days, I have pursued the course above recommended, recalled the vitiated blood to the surface by producing free perspiration, and I have had the pleasure of witnessing sudden abatement of the pain, succeeded by a recovery of the patients in a few days.

### *Apoplexy.*

In Apoplexy, this course is attended with much better effects than general blood letting. I cannot think in this disease there is too great a quantity of blood which calls for an abstraction of it, but the disorder arises from unequal circulation. The blood



recedes from the surface and extremities, and is accumulated or effused upon the brain. The remedy then is, *to equalize the circulation*. I have never failed to arrest the disease by such treatment, particularly in the commencement.

### *Fits.*

In fits, the practice is equally efficacious. I never knew it fail of affording relief. I was called some time ago to a woman who had been subject to convulsions for years, and she had sometimes several in the course of the day. The treatment was to divert the fluid from the brain to the surface and extremities. Nothing at all was done for her except on every accession of the fit, to immerse her feet in warm water to which ley had been added, sufficient to render it somewhat sharp or biting to the tongue. This treatment alone in a short period effected a cure. I think I gave her little or no medicine.

### *Fainting.*

In asphyxia and fainting of every kind, the immersion of the feet in warm water, will restore the patient.

### *Hysterics.*

In hysterics, the same benefit will be experienced. The extremities are cold, the surface pale, attended

usually with chills, all which is accounted for on the same principle. The treatment should be the same as before recommended. The feet and surface must be bathed with warm water and weak ley, and other means recommended to cause perspiration. If fits come on, the feet should be immersed in warm ley water.

### *Intermittent Fever.*

In the intermittent fever, or fever and ague in the cold stage, stimulating medicines given internally, and heat applied externally, will be found highly beneficial. The application of sudorific or sweating medicines, just before a paroxysm or fit comes on, will often cure or diminish the violence and continuance of it. The duration of the hot stage is always in proportion to the cold; hence those medicines which lessen or moderate the cold, necessarily lessen the hot stage. When the vapor bath cannot be had conveniently, the patient should be well covered in bed, hot bricks or bottles of water may be applied to the sides and feet, warm drinks freely taken until perspiration succeeds.

In some cases of intermittent, so powerful is the influence of cold upon the system, that little or no reaction takes place. Nothing but heat in this case will save the life of the patient.

### *Headache.*

In headache, the same course will be found useful

by diverting the fluids from the head and extremities; the pain arising from different causes will cease. The headache arising from *difficult* and *suppressed menstruation*, by bathing the feet in warm water and using a hip or warm bath, will often be removed without any other medicine.

### *Dropsy of the Head.*

The dropsy of the head is also very much relieved by this process, by bathing the feet and surface, and making cold or tepid applications to the head. It powerfully assists in allaying the inflammatory action.

### *Inflammation.*

In phlegmonous and erysepelatous inflammation, perspiration, aided by warm and relaxing poultices, are attended with excellent effects.

### *White Swellings, and other Painful Diseases.*

In white swellings and other painful diseases, the application of heat in the form of steaming, is attended with the happiest effects, and indeed is often a complete and sovereign remedy. Cases have been relieved and cured by it, which has baffled the skill of our most noted physicians. This principle properly applied, will mitigate the acute symptoms of white swellings, and similar complaints in fifteen or twenty

minutes, and by its repeated application, will wholly remove the horrid sufferings of the patient.

### *Inflammation of the Eyes.*

It is difficult to make a practitioner, unacquainted with the fact, believe what salutary effects follow the means here recommended in cases of opththalmia, or inflammation of the eyes. I have cured inflammation of the eyes, bordering upon blindness, of more than two years standing. I have merely ordered a purgative, a vapor bath once a week, the feet to be bathed every night, or every other night, for a great length of time, and this treatment has recalled the blood from the head to the feet and surface, which, of course, lessens the pain and inflammation of the head.

When the head was in pain, and the eyes much inflamed, bathing the feet gave immédiate relief. This will not appear strange to the physiologist, or the physician, who understands the pathology of diseases in general. He will at once see the cause, and the indications of cure.

### *Means of Promoting Warmth and Perspiration.*

I have already hinted at some of the means to promote warmth and perspiration; but it may be proper to dwell somewhat more upon them in this place. In general, perspiration may be promoted by taking

warm diluent drinks, and nothing is better than a strong infusion of eatnip, freely drank; also bathing the feet in warm water, or weak ley. The surface in most cases may also be bathed with the same, as warm as possible, while the patient is in bed. The clothes may be raised with one hand, and a piece of flannel dipped in warm ley applied with the other hand to the surface. When one side of the body has been thoroughly bathed from the neck to the feet, then the sick person must be turned on the other side and bathed in the same manner. The liquid should be kept hot or warm by the bedside, and additional clothing sometimes becomes necessary to aid the process. Bottles of hot water may likewise be placed to the sides and feet. These means will answer in many cases, but it often becomes necessary to apply more powerful means to accomplish this object. The pores of the skin are frequently so closed, or constricted, that a greater degree of heat is necessary to open them. For this purpose there is nothing more simple and effectual than the *Vapor Bath*, mentioned under the head of "remarks on the use of the medicated vapor bath." Certain other medicines to answer these indications will be mentioned, while treating of different diseases.

### *The Remediable Influence of Cold.*

I will now speak of cold applications. This is a class of very great importance, one which has been too long in disrepute, and too little used in our at-

tempts to alleviate human sufferings. Cold applications are required in high feverish heat, in all bruises, sprains and inflammations, in violent headaches, sore eyes, wasp stings, &c.

Now let us look at the *reason* for applying cold. It is in all cases to *prevent too much inflammation*. It is one law of our nature as before shown, that an unusual quantity of blood immediately rushes to any part inflamed. As proof, think how quick the eyelids will swell when struck, or the arm swell when stung by a wasp. Now this swelling is in part owing to the flesh being crowded too full with blood. Again; it is another law of our nature that less blood goes to any part that is cold, and more to any part that is warm. As proof, in winter we come into the house with hands, face, ears, &c. white with cold; but at the same time we find those sitting by the fire red with heat.

By this course of reasoning, then, we see why cold is applied; and may also learn all the cases in which it is required, viz. in all cases where we wish to prevent inflammation and swelling, or where swelling has taken place and we wish to remove it. And we may learn by remaining out in a cold evening long enough to freeze the ear, that we have driven every particle of blood from it, and it is as white as a lily. In all common cases, much less cold than that will answer our purposes. The effect will always be the same, differing only in degree. Cold will always keep the

blood from rushing to the part; that is, will prevent inflammation and swelling, and that is what we are called upon to do. Having proved then that cold applications are necessary and useful, the next question will be, how will this application be made? What article shall be used?

I will say that there are many articles, and many ways of accomplishing this object; but the cheapest, the most convenient, the neatest and altogether the best mode of applying cold, is by means of cold water.—Cold is applied then in cases of inflammation of various kinds. Of the brain, the application of cold water is attended with benefit. In certain cases of typhus fever, ablution and the effusion of it has often been attended with benefit. Also in other febrile diseases, where the heat is above the natural temperature of the body, except in eruptive diseases in which it should not be used. In hemorrhages cold water is sometimes used with advantage. In weak and inflamed eyes it imparts tone and a healthy action to them. In contusions and sprains the application of cold water is sometimes useful, and occasionally it has been found of benefit in the form of the cold and shower bath, but heat or warmth in most diseases is far preferable.



*Additional Remarks.*

Although I have laid great emphasis upon the necessity and importance of promoting warmth and perspiration in diseases, I wish it not to be understood that it is *insisted upon or recommended to the exclusion of other appropriate means, or that other remedies be in any wise neglected.* I have dwelt more largely upon this subject, because physicians generally have not paid that attention to it which it deserves, and because they, like Dr. Sangrado, have substituted bleeding for perspiration, believing no doubt that no other means are sufficient to reduce it. Again, I have not in this treatise insisted so *strenuously* upon attention to the other excretions, because there is not so great a disparity in our views, as there is on the subject of the capillary system.

We all agree upon the propriety of fulfilling most of the indications for the cure of disease, but *the wide, the radical, the irreconcilable difference,* consists in the various means made use of, to fulfil those indications of cure.

## CHAPTER X.

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### *Character of Fevers in general.*

THIS class of diseases is characterized by an increase of heat, an accelerated pulse, a foul tongue, and an impaired state of the functions of the body. I agree in opinion with Dr. Donalson on fevers, who says, that, during his travels in the East Indies, in the years 1810, '11, '14, '15, and '16, I had many opportunities of observing the plan pursued in the case of fevers, by the East Indians. Thus it may be perceived, how I came to possess a new doctrine and theory of fevers, and to institute a new method of treatment on the foundation of a sure and certain principle of practice. I have seen the East Indian practitioners cure the most vehement cases of intermittent fevers in the space of a single day, with such mathematical precision and certainty, as I never beheld in any region of the earth; by *purgings*, *vomiting*, and *sweating*, &c. I perceived that they also cured without knowing the nature of disease, or the principles of their practice; and was led to believe all diseases curable, if we could only discover the remedies against them, and would apply these

remedies in due time and to sufficient extent, to effect these possible ends. Their method of treatment consisted in their administration of a medicine that effectually purged and vomited their patients, who were obliged at the same time to use the steam bath, and to drink abundantly of warm teas until copious or profuse sweat was produced, and the fever was mechanically reduced, leaving nothing to be done by feeble nature, as the ancient and modern practitioners of Europe were accustomed to do many ages prior to the days of Bottallus and Sydenham.

### *Description of Fevers.*

Fever is an increased action of the heart and arteries, to expel from the system irritation or morbid matter. It is salutary in its nature, being the means used to throw off something that offend or oppresses her. It is often fatal, but this is rather to be attributed to the fault of the constitution, than the disease itself, or rather to the want of proper remedies.

When a person is suddenly attacked by shiverings or rigours, followed by a hot skin, a quick pulse, and a feeling of languor and lassitude, he is said to have an attack of fever. With such symptoms are usually present also a loss of appetite, thirst, restlessness, and diminished secretion. These constitute the leading symptoms of fever, the characteristic features by which its presence may always be detected. Every function of the body indeed is more or less disturbed.

## CAUSES OF FEVER.

*Remote Causes.*

1. Cold.
2. Heat.
3. Marsh or vegetable effluvia.
4. Human effluvia.
5. Animal effluvia, to which may be added great exertion and fatigue, the passions, injuries, &c. But cold, or a check of perspiration, no doubt, produces three-fourths of febrile diseases.

*Intermediate Causes.*

1. Morbid state of the stomach from worms, bile, &c.
2. Obstruction in the capillary vessels.

*Proximate Causes.*

Extraneous morbid or deleterious agents, generated in or out of the body, mixed with the blood, and acting as incitants or stimulants upon the internal surface of the heart and arteries, propelling the blood with increased force or velocity, in order to expel these morbid agents by the skin or other outlets or excretions of the system.

*Symptoms.*

The first characteristic of fever, are chills, sometimes a sensation as if cold water was running down the back. The patient complains of great coldness, and flushings, and great heat succeeds; the pulse becomes more frequent, full and harder, showing an increased action of the heart and arteries. There is a sense of languor, lassitude, and fatigue, which is increased by exertion. Pain in different parts of the body, in the head and neck, along the course of the spine, in the extremities, in the muscles and joints; soreness of the flesh, want of sleep and difficulty of breathing is experienced. All the secretions and excretion of the body are deranged. The tongue is coated with a foul substance, loss of appetite, nausea, the mouth dry and clammy, the skin dry and parched.

*General Indications of Cure.*

Restore the suppressed evacuations, or the secretions and excretions. This will remove the offending, or irritating cause, and when this is removed the effect, or in other words the fever, must necessarily cease. In fulfilling this *one* indication, consists *the whole secret of curing febrile diseases.*

*Particular Indications of Cure.*

1. Moderate the violence of arterial excitement.

2. Obviate local inflammation and congestion.
3. Support the powers of the system.
4. Relieve urgent symptoms.

The necessity of fulfilling all these indications must be borne in mind by the practitioner. In every modification of fever, it becomes his duty to render himself an assistant of nature.

What she endeavors in the commencement of the disease to accomplish, is, to evacuate the deleterious agents by the proper passages. The whole business of art, therefore, is to assist her in these two efforts of secretion and excretion of the morbid matter.

There are few preparations which have a greater tendency to diminish heat; to attenuate viscid humors; remove obstructions; promote perspiration; increase the quantity of urine, than drinking freely of water, or any other weak diluting liquor, of which it is the basis. The necessity of such drinks or liquors, is plainly indicated by the dry tongue, parched skin, and the burning heat, as well as by the extreme thirst of the patient.

#### *Secretions and Excretions.*

When they are restored to their healthy action, how quick does convalescence take place. The gastric, the alvine, the urinary and perspiratory discharges and functions become natural; the heat of the system equalised; the pulse falls to its natural standard, and with this decline of the febrile commo-

tion, there is a correspondent, healthy action in every organ; the appetite is improved, and strength and health is re-established.

### *The Stomach.*

When we reflect upon the extensive influence of the stomach over the system, and particularly the skin, we shall be able more readily to appreciate the utility of emetics in febrile diseases. The administration of an emetic, proves very effectual. It not only cleanses the stomach of any bilious, feculent, irritating, or any morbid matter; but it proves eminently beneficial by the general relaxation which follows it, approaching sometimes almost to fainting, and which extends to the skin, and produces perspiration. They may, as a general rule, be given where there is much nausea, and where there is no peculiarity of constitution to forbid. They are very serviceable in bilious, intermitting, and remitting fevers.

### *The Bowels.*

The intimate relation which exists between the whole of the alimentary tube or canal, the skin, and other parts of the animal economy, points out the necessity of promoting in them a healthy action.

Purgatives, therefore, have a decided good effect in fever. The preternatural excitement of the blood vessels is sensibly diminished by the exhibition of pur-



gatives. This effect takes place by removing the feculent matter which they contain, and by stimulating the exhalent vessels of the mucous membrane of the intestines, causing them to pour out copious effusions from the blood, or circulating mass.

### *Nursing.*

In vain will the best medicines be given without a proper nurse or person to administer it, and to attend faithfully to every duty of her office or business. It is very seldom that we find a good nurse, as profitable and as important as the profession is.

Some are ignorant, some careless and inattentive.

I know not but that I may say, that more depends upon a good nurse than upon the physician. It is the duty of the nurse to punctually administer the medicine prescribed, according to the directions given, and not to cheat the physician by throwing it into the fire, and then give their own nostrums or some others, and when interrogated respecting it, dissemble and lie by *affirming* that it *has* been given.—This practice is very reprehensible, no matter what kind of practitioner attends the patient. Let the physician be discharged, or follow his prescriptions.

It is the duty of the nurse to pay strict attention, also, to the wants of the sick, to the medicines, drink, diet, &c. that they be given in right quantities, and in a right time; that the clothes of the patient and

his bed, be often changed, and kept clean. Also, that every thing offensive, be immediately removed. Let the room be kept well ventilated, clean, and quiet.

It is not her duty to dictate and pretend to know more than the person who prescribes, nor to suffer a dozen gossips, or women, to associate together, and recommend new doctors, patent medicines, nostrums, &c. or to make use of any language, calculated to excite distrust, unnecessary alarm or fear of the patient or friends. Great mischief is often done by such a course of conduct, and all classes of physicians suffer much by it. Nurses who are guilty of such deportment, ought to be at once *discharged*.

## CHAPTER XI.



### *Cancer.*

THIS is a painful scirrhus tumor, terminating in a fatal ulcer. Every portion of the body is liable to the disease, but the glands are the parts most subject to it, and women are more liable to it than men. There is but one known species, divided into occult and open, or indolent and ulcerous, which means nothing more than the different stages of the disease, as it advances from a scirrhus to a malignant state. It generally is small in the beginning, and increases gradually; but though the skin changes to a red or livid appearance, and the state of tumor from an indolent to a painful one, it is sometimes very difficult to say when the scirrhus really becomes a cancer, the progress being quick or slow, according to concurring causes. When the tumor is attended with a peculiar kind of burning, shooting pains, and the skin hath acquired the dusky purple, or livid hue, it may then be deemed the malignant scirrhus, or confirmed cancer. When thus far advanced in women's breasts, the tumor sometimes increases speedily to a

great size, having a knotty unequal surface, more glands becoming obstructed, the nipple sinks in, turgid veins are conspicuous, ramifying around, and resembling a crab's claw. The same symptoms accompany an internal cancer. A cancerous tumor never lessen and sink down in suppuration, like an inflammatory one. When it is ready to break open, it generally becomes prominent in some minute point. Ulcers of the cancerous nature discharges a thin fœtid, acrid sanies, which corrodes the parts. They have thick, dark-colored retorted edges, and fungus excrescences rises out of the ulcer. Mr. Charles Whitlaw, the distinguished medical botanist says:—"The term cancerous is Greek, the disease being thus called from the crab-like ramifications of the dark, distended veins of the cancerous tumors. The question is of some consequence, whether it be a constitutional, or a local, an hereditary, or an occasional disease. Much has been said, and well said, on all sides. I will not argue whether cancer is local, hereditary, or constitutional, but come to the point at once. I do assert, that it is produced by the ranunculus or buttercup, that is eaten by the cattle and sheep. The oil of that poisonous plant, forming for the most part the butter and the fat of meat. I am well convinced of this, owing to an experiment made by a young man in 1817. A blister that was drawn on his leg, by applying a portion of the plant, terminated in a cancer. Since that time, I have never lost

sight of the effects, of that most destructive plant upon the human frame.

In the year 1808, when traveling through the western part of the state of New York, particularly on the flats along the banks of the Genesee river, I met with a number of cases of reputed cancer. The Indians were very successful in curing the disorder. After many fruitless efforts to learn the nature of the remedies they used, a fortunate circumstance at length put me in possession of the secret. A German shoemaker, who had already discovered many of their simples, went to the doctor's wigwam with a lady, who had the disorder in her nose and mouth, the bones of which were in a state of decomposition. As they approached, a woman ran out with a child screaming in her arms, from the effects of a burn. While the doctor and the rest were busily employed in commiserating the distressed child, and dipping it in a neighboring pool to sooth the pain, the shoemaker observed the pan containing the herbs preparing for the cancer, and took the opportunity to conceal a handful of them in his pocket, which he immediately brought to me. The sample consisted of three different herbs; the quantity of each gave me a tolerable good idea of the proportions, and I instantly formed a decoction, which I compared with the Indian's remedies. Shortly afterwards I left the Genesee for New Caledonia, a Scotch settlement. Here an opportunity was offered me to make a full

trial of my new discovery, in the case of a woman afflicted with a disorder said to be cancer. The fore part of her upper jaw, her uvula and palate were destroyed by the disease, which was making rapid progress towards her complete destruction. The operation of the medicine was at first powerfully sedative, and allayed the excruciating torments under which she suffered so effectually, that whenever the pains returned, she had recourse to the medicine. The rapid progress she made towards recovery was astonishing, and she was finally cured. This case so established the character of the remedy, that its reputation soon brought around me many similar cases from the neighboring country.

I challenge any man to produce a case of cancer, where the buttercup does not grow.

In a number of cases, which have come under my treatment, in a scirrhus state, the tumours in the breast were from the size of a walnut to that of a coffee-cup, and some were the size of, and form of a common tea-saucer. I have not only succeeded in dispersing these, but many others in the maxillary glands. The individuals are now in perfect health; but if they were to eat the fat of buttercup meat and butter, the disorder would be excited again. A circumstance has happened within a few days, which furnishes sufficient evidence that one of the patients is sensible of the effect of butter on the system. A young woman, who, some time ago, had a cancer in her breast, but who is now in good health, will try

the experiment upon herself, before a respectable body of disinterested men, to prove what I have stated. She will readily submit to the trial, if required, as she is confident that I can restore her again; and that in doing so, she might confer a great benefit on her fellow creatures. It is desirable that the trial be made.

I will conclude my remarks on the properties of the ranunculus or buttercup, by stating some experiments made in 1817, by a number of young medical gentlemen who attended my botanical lectures, in order to ascertain the specific action of a number of plants, belonging to the acrid and corrosive poisons. Various trials were not only made on dogs and cats, both internally and externally, but three of the students made several upon themselves. The first individual was a young man who had flaxen hair, blue eyes, had lived principally on vegetables, and was of an acid temperament of body. He applied a plaster made from the buttercup to the fleshy part of one of his arms. In a short time the part was slightly inflamed, but the skin was not broken: these symptoms did not last long. The second person was very healthy, and had lived upon a proper mixture of vegetable food. He applied the buttercup plaster about the same time in the evening as the other individual. In the morning, fine blisters were raised, and when discharged, washed, and dressed, they healed as well as those drawn by cantharides. The third person lived chiefly on butcher's meat, and was particu-



larly fond of fat and butter. He had dark hair, grey eyes, and a bilious appearance. He applied to his leg, upon going to bed, a plaster from the same mass as the other two, and found in a short time that it had produced the most violent inflammation. He bore the pain for upwards of two hours, when it became so insupportable that he took it off, and found the following morning that a blister had been raised, had broken and discharged. The humour had corroded the skin as far as the plaster, and ichor had extended, and a large ulcer followed. This we could not heal. It corroded the flesh to the bone, and emitted an inchorous foetid discharge resembling cancer. A number of medical men were of opinion that amputation must be resorted to, in order to save his life : there were others of opinion that absorption had taken place, and therefore amputation would be dangerous. The cause of the inflammation was ascribed by the former to the sympathetic action of the poison, and not to absorption. In this dilemma I persuaded the gentleman not to submit to any operation, but recommended him to take the advice of an Indian doctor. To this he assented ; and the doctor, upon seeing the case, declared he could cure him, if he would confine himself to a prescribed diet. This was to consist principally of vegetables ; and neither salt, spices, nor any heating substances, were to be eaten. I could not, at that time, discover the nature of the herbs he employed, but with them he soon brought the ulcer to a healthy state, for it granulated

and healed rapidly : thus showing the importance of a vegetable diet in cancerous cases. About a month afterwards an eruption broke out on the second case, resembling chicken pox : the vesicles filled and discharged a matter somewhat resembling small pox ; afterwards forming a crust or scab. During the continuance of the fever, the inflammation had a dark red appearance, and the pustules were of a bluish color, the largest of which had a tendency to ulcerate ; but, by adopting a vegetable diet, and an alterative medicine, they soon disappeared.

I saw a young man who had been treated for a white swelling in the elbow joint, and had taken a considerable quantity of calomel. A plaster of the buttercup was applied to the swelling, which, in a short time, brought on the most active inflammation. I was called to see the patient, after ulceration to a considerable extent had taken place. I found the bones of the arm, from the shoulder joint to the wrist, in a carious state, the face and eyes much affected, and the patient diseased beyond hope of cure.

In the case of a young lady, afflicted with an indurated gland or swelling in the side of the neck, a small slice of the root of ranunculus was applied to the tumour at night : it drew a blister, which broke before morning ; the water corroded the skin as far as it extended ; her face and nose became much inflamed and swollen, and the roof of her mouth ulcerated. I prescribed a vegetable diet, al-

terative medicine, and the vapor bath, which soon subdued its effects. I could multiply innumerable instances of its effects in my experience.

*Opium* is another article, which has a decided ill effect upon cancerous constitutions. Among the numerous cases of scirrhus and cancer that have come under my treatment, I have not met with a case of fungus hæmatodes or bleeding cancer, or severe bleeding in common cancer, where opium had not been administered. Opium never fails to disease the blood vessels and increase mortification of the parts, in all cases of open cancer; and to use the language of the ancients, it eases pain, not by mitigating it, but by the obstruction of the animal spirits for the time. As far as my observations have extended, I have noticed, that as soon as the sedative powers of the opium is over, an increase of pain is sure to follow, attended with inflammation and mortification; and I do firmly believe that the use of opium ought to be prohibited. It may be given to alleviate pain, by such practitioners as have not a better remedy. All who have written upon opium, at least those works which I have seen, say that the article was unknown to Hippocrates. My opinion is, that he too well knew the effects of that destructive drug to administer it: yet there never has been since his day so successful a practitioner as he was, and without using opium. So dangerous and various are its effects, that the subject cannot be too strong-

ly argued, nor quotation multiplied, to decry the existing evil.

It now becomes a duty in me, to inform those who are so unfortunate as to have cancerous tumors in the breast and other parts of the body, that if they apply to me in time, they may generally expect a cure; but if the disorder be allowed to inflame and suppurate, or the integuments to be destroyed, there is little hope of recovery. It is not surprising that the faculty will not believe, that cancer of the breast and womb can be cured after it suppurates; for this reason, that it is so closely connected with the heart and lungs and other vital parts.

At one of my vapor bath establishments in America, I gave the medical gentlemen a list of plants that were never made use of by any medical adviser. Of the number, one was found a specific for the cure of cancer in the face. The plant, and a description of the case, were sent to me; and upon trial, I have found the plant beneficial in a number of open cancerous cases, in an incipient stage. Whether the disorder will return, I am not able to say, but have reason to hope it will not: should it not, the discovery will prove the best ever made in the history of medicine.

The first case on record, is a gentleman of seventy years of age. The cancer began in his lip, and had corroded half his cheek; it discharged an ichorous sanious matter of an intolerable smell. Every remedy had been tried by a number of medical men without the least success, until the plant in question

was given. As soon as sufficient evidence of its specific virtues can be produced, it will be made public for the benefit of mankind.

*Inflammation of the Mucous Membrane of the Trachea, Lungs, &c.*

It is generally admitted that persons, when once afflicted with a disorder of mucous membrane of the trachea, windpipe, epiglottis, and lungs, cannot obtain relief from the usual means resorted to. The disorder is frequently confounded with the croup, a very different disease. Sixty years ago few cases of that nature were to be met with, but that within the last ten years, they have increased in malignity and degree to an alarming extent. Formerly the complaint was confined to the aged and infirm, but latterly it has made great inroads upon our youth. I believe the disease to originate from impure water, fat meat, bad butter, bad milk, and bad cheese, the produce of cattle fed on poisonous weeds, proving both pernicious and destructive to life. The unwholesome properties found in the food mentioned, induce visceral inflammation and indigestion, with all their awful train of attendants; and when mercury, in its various forms, are used as cures, it only aggravates the disorder, particularly when taken on

an acid stomach, as it then becomes a corrosive poison, ulcerating the intestines, diseasing the blood vessels, bones and brain.

### *Costiveness.*

To obviate this complaint, recourse is generally had to purgative medicines, which frequently aggravate the disease.

The French have long pursued a much more beneficial mode of treatment. Instead of drastic purgatives, they apply a simple remedy to the disordered organ, in the form of a clyster, which, if properly administered, softens and dissolves the contents of the bowels, removes obstructions, by the mechanical distention it produces, and by its gentle stimulus, restores a healthy tone and action, without producing pain or putting the person to any inconvenience. Mr. Frederick Liese, surgical instrument maker, New York, has constructed an improved domestic syringe of great value. The apparatus is so simple that it can be applied by an invalid with the greatest ease, without the assistance of a second person, and is capable of transmitting any quantity of fluid desired. The Enema may be made of pure soft water or Castile soap and water. I cannot too strongly recommend the use of this self-injecting machine. No family should be without one. I have had repeated



proofs of its decided advantage over every other instrument within my knowledge, invented for the same purpose.

*Struma. (Scrofula.) Struma Vulgaris. (King's Evil.)*

This is a disease arranged in the Cullenian system, in the class, Cachexiæ order impetigines. Dr. Cullen distinguishes four species. 1. Scrofula Vulgaris, when it is not connected with any other external and permanent disorder. 2. Scrofula Mesenterica, when internal with loss of appetite, testinal derangement and pale countenance. 3. Scrofula Fungax. This species is situated only about the neck. 4. Scrofula Americana, when it is joined with the yaws. Celsus includes it under one head, possessing but one character, SCROFA STRUMA, a *swine*; because this animal is naturally subject to it, and is thought to be the general cause of it in mankind, from their eating swine flesh. Dr. Stall makes a distinction between Scrofula and Struma, by regarding one as local and the other as constitutional or a hereditary disease. Dr. Mason Good, in his system of Nosology, has arranged it in the class, HÆMATIA, order DYSTHETICA, GENUS STRUMA, SPECIES, STRUMA VULGARIS. The Scrofula, when seated in the neck behind the ears and under the chin, is generally known as the King's Evil, called so from the custom of patients formerly submitting to the *royal touch*. Called also the Sev-



enth Son disease, because it has been superstitiously believed that the touch of a seventh son would cure it most effectually. It has likewise been called Swine-evil, Swine swelling and Swine's Tumours, from the fact of that animal being subject to this morbid disease. Dr. Charles Whitlaw, has taken a view of Scrofula different from any other writer upon the subject with which I am acquainted. His opinion is consistent with the laws of nature, and therefore perfectly correct. He says :

“I am truly astonished that the cause of the disorder in swine, was not known before the time of Dr. Mason Good, and that he should remain ignorant of it to his death. In order to assist in investigating this subject, it will be well to examine into the method of feeding swine in London. It is customary to feed the greater part of them on putrid substances obtained from the dust-holes, and the refuse part of the carcasses of old and diseased horses.

I have frequently visited the places where the animals are fed, and have invariably found the stench of their food so strong, as not to be endured. Five thousand are annually fed in that way, and sold in the London market. The practice is not confined to the metropolis, for numbers of persons who obtain a living by feeding pigs, will not allow the food to be eaten until it becomes putrid, several tubs being kept for the purpose in which meal and greens are thrown.

What, I would ask, can it arise from, but the acid

and putrid food they make use of? And what must be the consequence to those that eat their flesh, but the same disorders? Can we, moreover, be astonished, that persons afflicted with such diseases are rarely or never cured, when the faculty not only allow, but even recommend them to eat pork?

The advocates for eating pork may adduce sufficient evidence of its engrossing tendency, as is manifest in the peasantry of Hampshire, proverbially called Hampshire bolters: but as I have had such frequent opportunities of observing the filthy, or I would say, beastly disorders it generates, I cannot for a moment entertain the same opinions with such advocates.

Many Jews who have applied to me for advice, were surprised when I accused them of eating pork. The accusation arose from it being evident that the leprous affection, in its various forms, could not have originated without the use of pork. The charge was not denied, and conviction appeared to have its full force, for confession shortly followed, and my surmises were confirmed.

The effects of pork upon the Jews are more active and fatal than upon other people: they are marked by the pork passing rapidly into the putrid fermentation in the stomach, and producing a bilious attack, after the leprous spots begin to appear.

I have never met with a case of leprosy, that could not be traced to the use of pork; and the prevalence of scrofula, and other disorders, is no less surprising

when such disgusting and loathsome food is so generally eaten. One half of the deaths in London may be attributed to the use of such food, vinegar, sour fruit, the various poisons and acrid substances that are given to alleviate and cure, and the common practice of overloading the stomach with food.

The consequences of acid and acrid substances on the constitution of men and animals are as follows: The acid, combined with lime, becomes hard in the glands, and other parts of the body, forming what is called the glandular disease of a scrofulous nature: acids destroy the red colour of the blood, and contract the calibre of the blood-vessels, by which the circulation of the blood is much accelerated, and produces what Linnæus calls critical fever: acids will also form tubercles in the lungs, hence pulmonary consumption; tumours in the brain; and not unfrequently deprives mankind of reason. Acid and acrid substances, particularly butter and the fat of meat, produce the most dreadful of all disorders—the leucorrhœa or whites in women. I have frequently made inquiries of medical men, as to their opinion of the extent of the disease. The general idea entertained by them is, that it exists now more than it ever did, or that half the women in London are afflicted with the disorder. The children born of such women will be more or less subject to scrofula.”

*Medical Treatment.*

The course of treatment which I pursue in the cure of Scrofula, Cancer, Necrosis, Caries, Ulcers on the legs, and other parts of the body, is as follows : I first give purgatives and internal alteratives, and the medicated vapor baths properly prepared with herbs, to increase the action of the absorbent system, always taking as much care as possible that my patients live on the diet recommended in this work under the head of "Cookery for the sick," and "Plan of diet for invalids." Externally I apply the vapor bath, medicated fomentations, cleansing washes, poultices, ointments, salves, anti-acids, and strengthening medicines. Under this treatment I have generally found the disorder yield and the patient wholly recover under my care. In all cases a cure cannot reasonably be expected in a short time, for it often happens that the patient has not the means to defray the expense of a protracted cure, but in all cases when they can afford the expense of a cure, a perfect one may be expected. When the bones are rotten, or otherwise diseased, and the general health bad, it will take much longer to effect a cure. Diseased bones invariably arise from mercury, corrosive sublimate, or mercurial preparations, and from corrosive plants used as medicines. When mercury is taken on an acid stomach for any length of time, it is easily detected in the numerous diseases which

it produces. When it becomes fixed in the constitution it is very difficult to remove.

*List of Diseases and their Remedies.*

|                                                                                                   |                                       |
|---------------------------------------------------------------------------------------------------|---------------------------------------|
| For Bilious Complaints,                                                                           | Anti Bilious Physic or Pills.         |
| Consumptions, Coughs &c.                                                                          | Pulmonary Syrup and Hepatic Pills.    |
| Female Weakness and general Debility,                                                             | Restorative Bitters.                  |
| The Piles,                                                                                        | Pile Electuary.                       |
| Liver Complaints,                                                                                 | Hepatic Pills and Compound Bitters.   |
| Dyspepsy and acid stomach,                                                                        | Anti Dyspeptic Pills.                 |
| Worms,                                                                                            | Worm Powders.                         |
| Bowel Complaints, such as Diarrhœa, Dysentery, Cholera Morbus, and Summer Complaints of Children, | Neutralizing Mixture.                 |
| Affections of the Kidneys, Bladder, &c.                                                           | Diuretic Drops & Mixture.             |
| Salt Rheum, Tetter, &c.                                                                           | Herpetic Wash and Ointment.           |
| Rheumatism,                                                                                       | Rheumatic Pills and Liquid.           |
| Weak and sore Eyes,                                                                               | Eye Water.                            |
| Weakness in the Back, pain in the side, breast, &c.                                               | Strengthening and Rheumatic Plaster.  |
| Ulcers, Burns, &c.                                                                                | Black or Healing Salve.               |
| Colds, attended with Cough and soreness of the Lungs,                                             | Cough Drops.                          |
| Difficult and obstructed Menses,                                                                  | Female Pills and Restorative Bitters. |

- Scrofula and Impurities of Anti Bilious Physic, and  
the Blood, concentrated vegetable  
Syrup.
- For Scrofulous Tumors, Discutient Ointment and  
enlargement of the concentrated vegetable  
Glands, Syrup.
- For white Swellings, Ague  
and swelling of the Fomentation and com-  
Breast, Felons, &c. pound Laurus Poultice.
- For Fever and Ague, Fever and Ague Powders.
- For Asthma, Difficulty of  
Breathing, Croup or  
Hives, Whooping Cough  
&c. Expectorant Tincture.
- For Hysteric Fits, and Hysteric Drops, and Res-  
nervous Diseases, torative Bitters.

## APPROXIMATE LIQUID MEASUREMENT.

A pint contains sixteen ounces.

A tea-cup contains a gill.

A wine-glass contains two ounces.

A table spoonful contains half an ounce.

A tea spoonful contains sixty drops.

Four teaspoons full equal to one table spoonful.

## APPROXIMATE DRY MEASURE.

A table spoon contains four drachms, or half an ounce.

A tea spoon contains one drachm.

A tea spoon contains sixty grains.

## Weights, Measures, Signs, &c.

### WEIGHTS AND MEASURES.

|                              |   |          |                  |
|------------------------------|---|----------|------------------|
| The pound, Troy,             | } | contains | 12 ounces.       |
| The ounce,                   |   |          | 8 drachms.       |
| The drachm,                  |   |          | 3 scruples.      |
| The scruple,                 |   |          | 20 grains.       |
| The gallon, <i>congius</i> , |   |          | 16 pints.        |
| The pint, <i>octarius</i> ,  |   |          | 16 fluid ounces. |
| The fluid ounce,             |   |          | 8 fluid drachms. |
| The fluid drachm,            |   |          | 60 minims.       |
| The minim,                   |   |          |                  |

### HIEROGLYPHICAL SIGNS USED IN PRESCRIPTIONS.

|                                                  |                                                               |
|--------------------------------------------------|---------------------------------------------------------------|
| ℔— <i>libra</i> , a pound.                       | j.—one of any thing.                                          |
| ʒ— <i>uncia</i> , an ounce.                      | ij.—two of any thing.                                         |
| ʒ— <i>drachma</i> , a drachm.                    | ijj.—three of any thing.                                      |
| ℥— <i>scrupulem</i> , a scruple.                 | iv.—four of any thing.                                        |
| gr— <i>granum</i> , a grain.                     | x.—ten of any thing.                                          |
| M— <i>minimum</i> , 60th part of a fluid drachm. | xij.—twelve of any thing.                                     |
| ℞—stands for Recipe.                             | f., prefixed to dr. or oz.—fluid ounce.                       |
| ā, āā, or <i>ana</i> —of each alike.             | gtt.— <i>gutta</i> , a drop.                                  |
| Coch.— <i>cochleare</i> , a spoonful.            | ʒ iv. v.—a cup full.                                          |
| P. Æ.—equal quantities.                          | ʒ iss. to ʒ ij.—a wine-glass full.                            |
| ss.—half of any thing.                           | f. ʒss.—a table spoonful.                                     |
| iss.—one and a half of any thing.                | f. ʒijj.—a dessert spoonful.                                  |
| q. s.—a sufficient quantity.                     | f. ʒj.—a tea spoonful.                                        |
| q. pl.—as much as you please.                    | Pugillas—as much as can be held between the thumb and finger. |
| O.— <i>octarius</i> , a pint.                    |                                                               |



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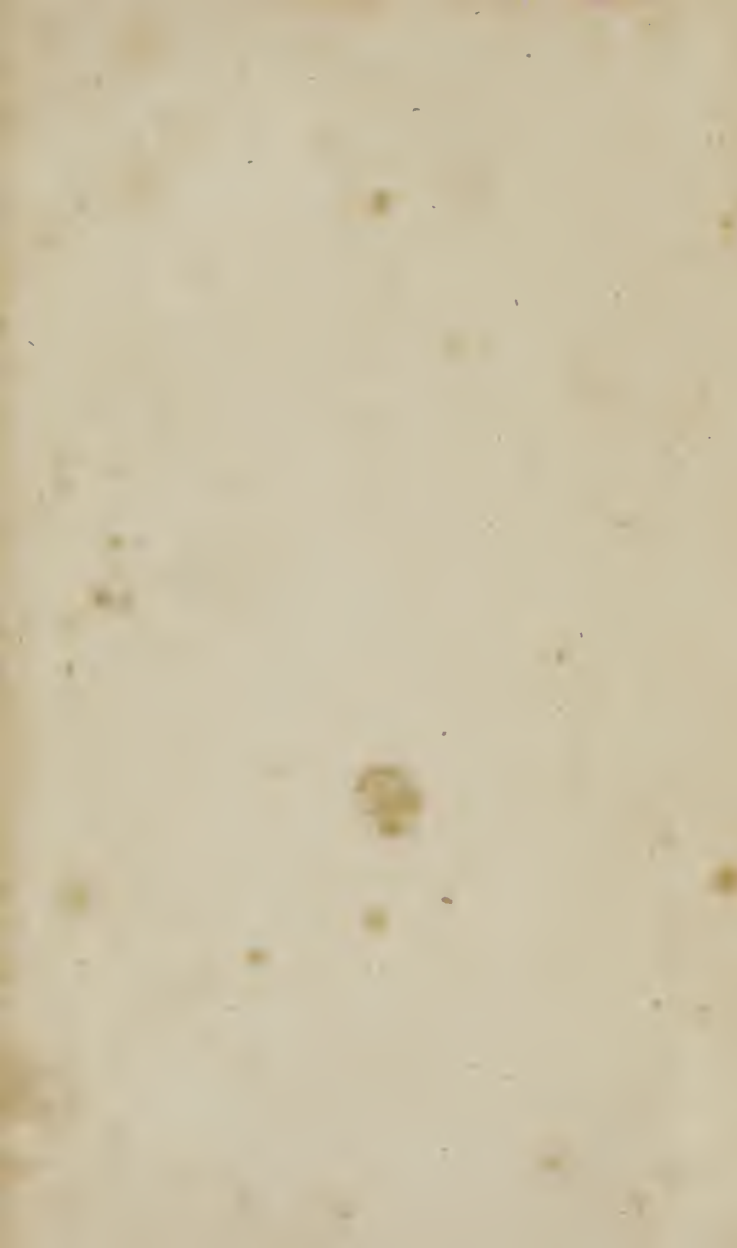
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